Diamond and Related Materials, 2 (1993) 1531–1535

Cumulative Author Index

for Volume 2

Ababou, A., 552
Abello L., 742, 746, 1203
Adachi, Y., 768
Agostino, R., 548
Ahn, J., 353, 491
Ajji, Z., 1525
Akaishi, M., 183, 1160
Akiba, Y., 1179
Aksenov, I. I., 866, 1387
Alers, P., 393
Amada, Y., 342
Amaratunga, G. A. J., 782, 1445
Ambrose, J., 1100
Anger, E., 417
Anthony, J. M., 670
Aoki, M., 1271
Aoyama, K., 337
Armeyev, V. Yu., 904
Ascarelli, P., 990
Ashburn, P., 1445
Asinari, C., 361
Asmussen, J., 812
Athwal, I. S., 1483
Avigal, I., 285
Avigal, Y., 317, 462
Ayres, C. F., 1100
Azarko, I. I., 1164

Babu, S. V., 211
Bachmann, P. K., 683
Bächli, A., 924
Bade, J. P., 816
Badzian, A., 147
Badzian, A. R., 92
Badzian, T., 92, 147
Baik, Y.-J., 218
Baik, Y.-J., 910
Balestrino, G., 389
Bălutjă, G., 500, 505
Banholzer, W., 121
Bantsekov, S.V., 291
Baránková, H., 347, 517
Bárdoš, L., 347, 517
Barb, D., 500, 505
Barbarossa, V., 1257
Bauer, C. E., 1156, 1391
Baumann, H., 584
Beck, R. B., 788
Becucci, M., 1257
Bemporad, E., 773
Benedetto, G., 890
Bentzon, M. D., 893
Berg, S., 347, 517
Bertran, E., 728
Bethge, K., 584
Bewilogua, K., 1206
Bhargava, S. K., 1439
Bi, Y., 1239
Bianchi, L., 468
Bienk, E. J., 432
Bigelow, L. K., 1064
Bilodeau, T. G., 699
Binari, S. C., 1020
Binggeli, M., 1211
Black, D. R., 121
Black, D. R., 121
Blank, E., 722
Blanpain, B., 272
Blanpain, B., 879
Blatter, A., 924
Blein, F., 468
Bluhm, A., 1191
Boarino, L., 890
Boborykin, V. A., 1434
Bögli, U., 924
Bonnot, A. M., 718
Borchelt, E. F., 1064
Botev, A. A., 1164
Boudina, A., 678, 852
Bouilov, L. L., 1164
Bounouh, Y., 259
Bourdon, E. B. D., 425
Boutard, D., 673
Brand, J., 243
Braun, M. W. H., 590
Brenn, R., 158
Bretagnon, T., 1479
Bringmann, U., 201
Brown, L. M., 1004
Brožek, T., 788
Brückner, J., 373
Brunsteiner, R., 1263
Buchmann, L.-M., 1191
Buck, M., 1525
Buckley-Golder, I. M., 825, 829, 1096, 1100
Buerki, P. R., 174
Bukhovets, V. L., 1327
Burdette, H. E., 121
Buth, J., 1206
Butler, J. E., 708, 1078

Caccavale, F., 1365
Campargue, A., 481
Campmany, J., 728
Cappelli, M. A., 454
Cardinale, G. F., 918
Carlsson, J.-O., 383
Carlsson, J.-O., 949
Carriere, B., 552
Castellucci, E., 1257
Catherinot, A., 746
Cauchetier, M., 486
Cavagnat, R., 19
Celis, J. P., 879
Cernogora, J., 259
Chalker, P. R., 825, 829, 1096, 1100
Chan, K. K., 1445
Chandra, L., 977
Chang, C. S., 928
Chen, C.-F., 732
Chen, J., 575
Chen, S.-H., 732
Chenevier, M., 481
Cheng, R. Y., 304
Chernenko, N. V., 904
Chin, R. P., 567
Chosa, M., 1156, 1391
Chu, C. H., 311
Chuang, T. J., 567
Cifre, J., 728
Clausing, R. E., 542
Clyne, T. W., 977
Colliex, C., 259
Collins, A. T., 1, 80, 87, 136, 737
Collins, R. E., 970
Corat, E. J., 169
Couzi, M., 19
Crossley, J. A. A., 1100
Crouse, P. L., 885
Cunningham, A., 670

da Jornada, J. A. H., 1322
Dannefaer, S., 1479
Das, K., 841
Davidson, J. L., 808
Davies, G., 80
Davies, R. F., 142
Davis, C. A., 782, 970
De Cesare, G., 773
de Oliveira, L. S., 1322
Deguchi, M., 634
Dehbi-Alaoui, A., 259
Dekempeneer, E. H. A., 272
Delan, A., 266
Demazeau, G., 19, 197
Demichelis, F., 890
Deneuville, A., 742, 746, 737
Denisenko, A. V., 1516
Dennis, G., 835
Dhar, L., 708
Dietrich, H. B., 1020
Dirnfeld, S. F., 317
Dötter, W., 449
Dorsch, O., 825, 1096
Doverspike, K., 699, 1078
Dreifus, D. L., 1107
Drummond, I. C., 402
Dunlop, E., 873, 890
Dušek, V., 397

Ece, M., 225
Economou, D. J., 25
Eden, R. C., 1051
Edwards, L. M., 808
Eersels, L., 272
Efimov, V. G., 1164
Ehrhardt, H., 246, 449
Eimori, N., 537
Eimori, N., 634
Erchak, D. P., 1164
Ermakov, M. G., 1336
Ermakova, O. N., 1336
Erz, R., 449

Eskildsen, S. S., 432, 893
Esrom, H., 678
Esteve, J., 728
Eun, K.-Y., 218, 496
Eun, K. Y., 910

Fabian, D. J., 873
Fabisiak, K., 722
Fabre, D., 417
Fallon, P. J., 782, 1004
Fan, W. L., 531
Fave, J. L., 259
Fayer, A., 317
Fayette, L., 552
Fedoseev, D. V., 1327
Feng, Z., 606
Field, J. E., 606
Fitzer, E., 678, 852
Flaño, N., 933
Fontaine, F., 746
Fontana, S., 990
Foursova, T., 211
Franke, D.-W., 1344
Freitas, Jr., J. A., 87, 699, 1078
Frischholz, M., 778
Fritsch, E., 70
Füßer, H. J., 407
Fuhs, W., 1360
Fujimori, N., 762, 1197
Fukumoto, K., 1156, 1391
Fukunaga, O., 1168, 1409
Füßer, H.-J., 1185

Gaissmaier, K., 943
Galanov, B. A., 869
Galluzzi, F., 773, 1257
Garcia, A., 933
Garcia-Cuenca, M. V., 229
Gardinier, C. F., 1059
Garenne, J.-J., 713
Gelfand, R. B., 1516
Gerberich, W. W., 617
Germain, C., 746
Gheeraert, E., 737, 742
Gheorghiu, A., 259
Gicquel, A., 417
Giling, L. J., 997, 1149
Gippius, A. A., 640
Girshick, S. L., 1090
Gissler, W., 873, 890
Giurgiu, C., 500, 505
Glass, J. T., 37, 142, 438, 590, 816, 963
Gleason, K. K., 126
Glesener, J. W., 670
Glumac, N. G., 169
Gomez-Aleixandre, C., 933
Gonon, P., 737, 742
Goodwin, D. G., 169
Graebner, J. E., 1038, 1059, 1064
Grasserbauer, M., 958
Graupner, R., 1467
Gray, K. J., 1064
Green, D. S., 661
Grigor'ev, O. N., 869
Grill, A., 597, 1519
Grinberg, V. R., 862
Grischke, M., 1206
Guattari, G., 773
Guo, Q., 1239

Hachigo, A., 1197
Haenni, W., 1211
Hammer, K., 413
Hammerschmidt, A., 778
Han, H., 1090
Han, S., 820, 835, 1012, 1033
Hänni, W., 393
Haq, S., 558
Harada, K., 342
Harper, R. E., 825, 1096, 1100
Harris, J. W., 75
Harris, K., 835
Harshavardhan, K. S., 1459
Hartweg, M., 407
Haruna, K., 859
Hatta, A., 537, 634
Haubner, R., 958, 1263, 1277, 1505
Haupt, J., 873, 890
Heatherly, L., 542
Heberlein, J., 617
Heggie, M. I., 1493
Hein, S., 939
Helbig, R., 778
Hentschel, E., 1175
Herb, J. A., 1059
Herlin, N., 486
Herres, N., 158
Hess, P., 1396
Hewett, C. A., 1319, 1341
Hewitt, P., 782
Higuchi, K., 612
Hintermann, H. E., 393, 1211, 1330
Hinze, A., 825
Hiraki, A., 537, 634
Hirao, T., 634
Hirata, A., 1402
Hirose, Y., 7
Hodeau, J.-L., 1203
Hogenkamp, J. E. M., 1149
Holzner, K., 1096
Hommel, H., 486
Hon, M. H., 311
Hong, F. C.-N., 365
Hong, S. M., 508, 793
Hong, T.-M., 732
Hou, L., 476
Houle, S., 673
Hsieh, H. F., 531
Hsieh, J.-C., 365
Hsu, S. E., 694
Hsu, W. T., 531
Hu, G., 476
Huang, B.-R., 812
Huang, J. Y, 567
Huang, T. H., 928
Huber, H.-L., 1191
Hübsch, H., 1206
Hultman, L., 562
Hundhausen, M., 1467
Hunn, J. D., 847
Hwang, C. T., 531
Hwang, J.-H., 365
Hytry, R., 251

Iida, M., 1179
Ikari, S., 758
Ikawa, H., 1168
Ilie, G., 500
Imam, M. A., 15

Ingram, D. C., 1069, 1414
Inspektor, A., 1156, 1391
Isozaki, T., 1156, 1391
Ito, T., 537, 634, 1156, 1391
Iwaki, M., 512
Iyer, S. B., 1459

Jacob, W., 378
Jacobs, R., 272
Jakubowski, A., 788
Janischowsky, K., 1467
Janssen, G., 997
Jeffries, J. B., 443
Jia, X., 508
Jiang, G. S., 575
Jiang, X., 407, 523, 1112
Jin, S., 1038, 1059, 1355
Johansson, E., 383
John, P., 402, 558, 1430
Johnston, C., 825, 829, 1096, 1100
Jones, R., 1493
Jubber, M. G., 402, 558, 1430
Jung, K., 246, 449

Käding, O. W., 1185
Kalish, R., 285, 462, 621
Kammlott, G. W., 1038, 1059
Kanai, T., 328
Kanalina, V. A., 1434
Kanda, H., 130, 136, 1420
Kanehara, H., 768
Kania, D. R., 820, 835, 1012, 1033
Karasutani, K., 803
Kasukabe, K., 758
Kato, K., 323
Katsumata, S., 1490
Kawarada, H., 100, 1083, 1271
Ke, N., 580
Keay, J. C., 1414
Kerr, D., 1479
Khong, Y. L., 1, 737
Kiflawi, I., 1243
Kikuchi, N., 190
Kim, D. H., 910
Kimura, T., 328
Kitabatake, M., 634
Kiyota, H., 1179
Klages, C.-P., 201, 407, 523, 1112, 1191
Kleber, R., 246
Klein, C. A., 918, 1024
Klyuev, Yu. A., 862
Knotek, O., 243, 528
Ko, H.-W., 694
Kobashi, K., 797, 803, 816, 1100, 1107
Kobayashi, K., 278
Kochman, A., 317
Koemtzopoulos, C. R., 25
Kohl, R., 158, 1248
Kohzaki, M., 612
Koidl, P., 158, 1248
Kolitsch, A., 1175
Kong, H. S., 590
Kononenko, T. V., 211, 904
Konov, V. I., 291
Koolbeck, D. A., 1020
Kotaki, T., 342
Kovarik, P., 425
Kowalkowski, R., 1330
Krüger, A., 246

Kruger, C. H., 661
Kuettel, O. M., 548
Kühn, M., 1350
Kumar, V., 1459
Kunz, G., 246
Kuo, C. T., 928
Kurihara, K., 1083
Kurosu, T., 1179
Kvaskov, V. B., 1327

Lake, M. L., 1069, 1414
Landstrass, M. I., 820, 1012, 1033
Lane, S. M., 835
Lang, A. R., 106
Larsson, K., 949
Latham, C. D., 1493
Lawson, S. C., 130
Lazăr, D. P., 500, 505
Lazareva, O. I. , 1336
Le Normand, F., 552
Lebens, J., 92
Lee, J.-K., 496
Lee, K.-R., 218, 910
Lee, Y.H., 694
Leers, D., 683
Legrand, A. P., 486
Leizerov, V. M., 1434
Lempert, G. D., 285
Leo, G., 773
Lereah, Y., 462
Leutwyler, S., 174
Levashov, E. A., 207
Ley, L., 1467
Li, C., 1090
Li, P., 580
Li, W., 508
Liang, G.-T., 365
Liberman, Ya. L., 1434
Liebler, V., 584
Lifshitz, Y., 285
Ligeon, E., 746
Likhanski, S. V., 291
Lin, T. S., 928
Lindlbauer, A., 1505
Liston, M.-J., 898
Liu, E., 476
Löchel, B., 1191
Locher, R., 158, 1248
Löffler, F., 243, 528
Loh, M. H., 454
López, F., 229
Loubnin, E. N., 211
Loubnin, E. N., 904
Lu, F. X., 575
Lu, G., 1064
Lucazeau, G., 742, 746, 1203
Luce, M., 486
Lugscheider, E., 1464
Lunell, S., 949
Lüthi, R., 924
Lux, B., 958, 1263, 1277, 1505

Ma, G. H., 142
Ma, J. S., 537, 634
Maar-Stumm, M., 722
Machi, Y., 278, 656
Mäntylä, T., 373
Maeda, H., 758, 859
Mainz, B., 413, 704
Makepeace, A., 115
Maksimov, M. G., 866
Mal'nev, V. I., 1253
Malta, D. M., 841
Mandel, Th., 778
Mann, K., 233
Marchuwka, M., 1020
Marcus, B., 552
Marinelli, M., 389
Marsden, P. J., 829
Martinu, L., 673
Masuda, A., 1156, 1391
Masuda, S., 758
Masuko, N., 333
Mathis, B. S., 718
Matsui, Y., 7
Matsumoto, O., 337, 342
Matsunami, H., 1043
Matthews, A., 259
Matthias, E., 1185
Maydell, E. A., 873
McClure, M. T., 438
McFall, W. D., 970
McKenzie, D. R., 782, 970
McWilliams, S., 1033
Mehlmann, A. K., 317
Meja, P., 1350
Mell, H., 1360
Melnikov, A. A., 1164, 1516
Meneve, J., 272
Mermoux, M., 552
Meyer, E., 924
Michau, D., 19
Milani, E., 389
Milne, D. K., 402, 558, 1430
Milne, W. I., 255, 782
Mishima, O., 1473
Mita, Y., 768
Mitra, S., 126
Mitsuda, Y., 333
Mitura, S., 573, 788
Miyata, K., 816, 1107
Möller, W., 251, 378
Mohrbacher, H., 879
Moon, J., 537
Moore, M., 115
Morariu, M., 500, 505
Moreno, M. A., 1033
Morenza, J. L., 229
Mori, Y., 537, 634
Moriyasu, T., 333
Morooka, S., 758
Moses, D., 1020
Moustakas, T. D., 1355
Mueller, C., 1211
Müller, F., 233
Müller, U., 1464
Müller-Sebert, W., 158, 1248
Münzinger, P., 1185
Muto, Y., 797, 803
Mutsukura, N., 278, 656

Nakagawa, N., 323
Nakahata, H., 1197
Nakano, S., 1168, 1409
Nakano, T., 278
Nakashima, T., 768
Naletov, A. M., 862
Nelson, J. C., 617
Nender, C., 517
Nepsha, V. I., 862
Nesládek, M., 357, 361
Netzelmann, U., 852
Nguyen, R., 1341
Nielsen, P. S., 893
Nikulski, R., 201
Nishibayashi, Y., 762
Nishimura, K., 634, 816
Nisida, Y., 768
Noda, S., 612
Norekrans, A.-S., 383
Novikov, N. V., 1253
Núñez-Regueiro, M., 1203
Nyberg, T., 517

Oberlin, J. C., 746
Obermeier, E., 825, 939, 1096
Ogryzlo, E. A., 1483
Ohl, A., 298
Ohno, Y., 768
Ohsawa, T., 1473
Ohsawa, Y., 190
Okano, K., 1179
Okushi, H., 1179
Oles, E. J., 1156, 1391
Olszyna, A., 239
Onate, J. I., 933
Oral, B., 225
Orrman-Rossiter, K. G., 1439
Ositinskaya, T. D., 1500
Osman, M. A., 15
Osterwalder, J., 548
Otter, G. C. J., 1149
Owano, T. G., 661

Padyukov, K. L., 207
Paidassi, S., 468
Palij, Yu. Ya., 866
Pan, L. S., 820, 835, 1012, 1033
Paoletti, A., 389
Parikh, N. R., 847
Park, B. S., 910
Park, J.-K., 496
Paroli, P., 389
Patel, V., 597, 1519
Paterson, M. J., 1439
Pavel, E., 500, 505
Peng, H., 476
Peng, S., 580
Penina, N. M., 1164
Perov, P. I. 1336
Petrich, R., 704
Petrusha, I. A., 1253
Pfender, E., 617
Phelps, A. W., 70
Pickles, C. S. J., 606
Piekarczyk, W., 41
Pilankiewicz, E. A., 573
Pimenov, S. M., 291
Pimenov, S. M., 904
Pinter, I., 389
Pirri, C. F., 890
Plano, M. A., 820, 1012, 1033
Plotnikov, S. A., 1434
Podoba, A. P., 1500
Poitras, D., 673
Polini, R., 952
Polla Mattiot, F., 1257

Pollard, R., 25
Polyakov, V. I., 1336
Porath, R., 317
Prater, J. T., 438
Prawer, S., 41, 753
Priem, Th., 468
Prince, R. H., 425
Prins, J. F., 646
Prussin, S. G., 835
Pu, X., 476

Qi, L., 476

Rahe, M., 1424
Ralchenko, V. G., 211, 291, 904
Rameshan, R., 699
Ran, J. G., 793
Rau, B., 1344
Raveh, A., 673
Ravet, M. F., 417
Reinhard, D. K., 812
Reinke, P., 378
Reiss, H., 852
Reisse, G., 1379
Ren, J., 793
Richter, E., 1175
Richter, F., 1344, 1350
Rigato, V., 1365
Ristau, D., 1424
Ristein, J., 1467
Robertson, J., 984
Rogelet, T., 225
Romeo, M., 552
Roos, J. R., 272, 879
Röpcke, J., 298
Roth, S., 413, 704
Rotter, S., 285

Sahaida, S. R., 816
Sainty, W. G., 970
Saito, Y., 1156, 1391
Samlenski, R., 158
Sanchez-Garrido, O., 933
Sandu, V., 500, 505
Sangster, M. J. L., 1243
Sasaki, H., 1271
Sasaki, K., 1083
Sattel, S., 246
Savage, J. A., 558
Scatena, G., 417
Schaarschmidt, G., 1344
Schäfer, L., 1191
Scharff, W., 413, 704
Scheibe, H.-J., 1396, 1424
Schermer, J. J., 997, 1149
Schlapbach, L., 548
Schleinitz, W., 298
Schmidt, G., 266, 778
Schneider, D., 1396
Schulze, S, 1379
Schütte, S., 1360
Schwarz, Th., 1396
Seal, M., 997
Sei, H., 1160
Sénémaud, C., 259
Seki, H., 567
Serra, C., 229
Sessa, V., 1365
Seth, J., 211
Seward, C. R., 606
Shafi, Shen, Y. R., 567
Shih, H. C., 531
Shafi, Z. A., 1445
Shikata, S., 1197
Shimada, Y., 656
Shirafuji, J., 797, 803
Shlopak, N. V., 1164, 1516
Shmegera, S. V., 1500
Shulaev, V. M., 667
Silveira, M., 1257
Široký, P., 397
Sirota, Yu. V., 1253
Sivazlian, F., 438
Six, R., 407
Sjöström, H., 562
Smeets, J., 272
Smith, G. P., 1430
Smolin, A. A., 291
Sokołowska, A., 239
Sokolina, G. A., 291, 1164, 1336
Somerton, C., 558
Song, Y. H., 304
Sood, D. K., 1439
Spagnolo, R., 890
Spiberg, P., 708
Spinnewyn, J., 361
Spitsyn, B. V., 65, 291, 1336
Stalder, K. R., 443
Steiner, R., 958
Stelmakh, V. F., 1164
Stenzel, O., 413, 704
Stiegler, J., 413
Stingeder, G., 958
Stöckel, R., 1467
Stoeckel, F., 481
Stoner, B. R., 142, 590, 816
Strel'nitskij, V. E., 211, 667, 866, 869, 1387
Strom, U., 87, 699
Stuart, S.-A., 753
Sugino, T., 797, 803
Sun, J., 476
Sundgren, J.-E., 562
Sung, C. P., 531
Sung, S. L., 531
Suzuki, I., 190
Swanson, M. L., 847
Szmidt, J., 788

Tachibana, T., 37, 963
Tagliaferro, A., 890
Takarada, T., 323
Takezawa, H., 323
Tan, B. H., 491
Tan, F. H., 353
Tan, H. S., 353, 491
Tanabe, N., 512
Tanaka, J., 1473
Tang, C., 1414
Tanguy, B., 19
Taniguchi, T., 1473
Tebano, A., 389
Teremetskaya, I. G., 1164
Terranova, M. L., 1365
Thèye, M. L., 259
Thompson, D. G., 37
Tiefel, T. H., 1038
Ting, J.-M., 1069, 1414
Tolmachev, Yu. N., 1327
Tomaciello, R., 1257
Tomellini, M., 952
Tougne, P., 486
Trakhtenberg, I. Sh., 1434
Trefilov, V. I., 869
Truchet, S., 713
Tsai, C., 617
Tsai, M. S., 694
Tschersich, K. G., 542
Tunnicliffe, D., 558

Uchida, K., 612
Ullmann, J., 266
Ulyashin, A. G., 1164, 1516
Uyama, H., 337, 342
Uzan-Saguy, C., 285, 462

Vahala, K. J., 92
Vakula, S. I., 1387
van Enckevort, W. J. P., 997, 1149
Vaněček, M., 397
Varichenko, V. S., 1164
Varnin, V. P., 1164
Varshavskaya, I. G., 1327
Vasiljev, V. V., 667
Veerasamy, V. S., 782
Vella, N., 673
Venkatesan, V., 841
Verven, G., 468
Veselovski, I. A., 291
Vetterhöffer, J., 481
Vincenzoni, R., 773
Vitton, J.-P., 713
Viviente, J. L., 933
Vladimirov, A. B., 1434
Vollenberg, W., 997
von Keudell, A., 251
von Windheim, J. A., 438, 816, 841
Vorlíček, V., 397

Waggett, R., 115
Wagner, R. S., 835
Wahl, G., 678
Wakatsuki, M., 508
Walcher, H., 158
Wallenberg, L. R., 562
Wallendorf, T., 1344
Wang, D. Y., 304
Wang, J. J., 304, 575
Wang, X. H., 590
Wang, Y.-C., 142
Wang, Z. Z., 417
Weber, A., 201
Wei, R., 898
Weiler, M., 246
Weis, O., 943
Weiser, P. S., 753
Weissmantel, S., 1379
Werner, M., 825, 939, 1096
Wertheimer, M. R., 673
White, A. J., 255
Wiechert, D. U., 683
Wierzchowski, W., 115
Wilbur, P. J., 898
Wild, C., 158, 1248
Will, S., 1360

Williams, S., 661
Williams, S. W., 829
Wilson, J. I. B., 402, 558, 1430
Wilson, R. G., 1341
Wołowiec, R., 788
Woad, P. J., 136
Wolkers, L., 528
Wöll, Ch., 1525
Wolter, S. D., 142
Wong, S. P., 580, 1445
Wong, Y.-H., 1059
Woodin, R. L., 708
Woods, G. S., 136, 1243
Wu, J.-J., 365
Wu, S.-H., 732
Xu, S., 1467
Xuan, Z., 476
Yabe, H., 7
Yacobi, B. G., 92
Yamada, T., 567
Yamaguchi, A., 100
Yamaoka, S., 1160, 1420, 1473
Yang, B. X., 575
Yang, P., 476
Yang, S. J., 694
Yoder, M. N., 59
Yoshikawa, M., 1402
Yu, B. W., 1090
Yu, W., 1239
Yu, Z. M., 225
Yuan, Y., 575
Yugo, S., 328, 1490
Zachai, R., 407
Zaitsev, A. M., 1164, 1516
Zare, R. N., 661
Zeidler, J. R., 1319, 1341
Zeisse, C. R., 1341
Zheng, C. Q., 793
Zhu, W., 142, 491, 590
Zlobin, A. Yu., 904
Zuhr, R. A., 847

Cumulative Subject Index

for Volume 2

Absorption
- *Ab initio* study of hydrocarbons on diamond (111), 949
- Calorimetric absorption spectroscopy and photoluminescence study of defects in diamond, 699
- Optical spectra of diamond-like carbon films in the energy region between 1 and 13 eV, 1387

Acoustical properties
- Characterization of thin diamond-like carbon films by ultrasonic surface waves, 1396
- High frequency bandpass filter using polycrystalline diamond, 1197

Activation energy
- *Ab initio* energetics of CVD growth reactions on the three low-index surfaces of diamond, 1493
- Electrical characteristic frequency dispersion of diamond polycrystalline films, 1336
- Nucleation and growth of diamond on cemented carbides by hot-filament CVD, 317
- Trap states elucidated by a.c. conductance measurement in polycrystalline CVD diamond films, 803

Adhesion
- Adhesion strength of diamond film on cemented carbide insert, 1391
- Amorphous SiC PVD coatings, 528
- Diamond nucleation on steel substrates, 361
- Diamond–metal composite coatings on cemented-carbide tools, 617
- Effects of diamond-like hydrocarbon films on rolling contact fatigue of bearing steels, 898
- Improvement on adhesion strength of diamond film on cemented carbide by heated intermediate layer, 1156
- Service properties of cutting tools hardened with a diamond-like coating, 1434

Amorphous
- Amorphous SiC PVD coatings, 528
- Service properties of cutting tools hardened with a diamond-like coating, 1434

Amorphous carbon
- Analysis of CVD diamond grain boundaries using TEM and parallel electron energy loss spectroscopy in a scanning transmission electron microscope, 1004
- Deposition mechanisms for promoting sp^3 bonding in DLC, 984
- Deposition of carbon films by a filtered cathodic arc, 1350
- Effect of high supersaturation at the initial stage on diamond nucleation phenomena, 333
- Elastic characteristics of DLC coatings, 869
- Electron energy loss study of diamond-like and amorphous C films, 873
- H-free amorphous C coatings deposited by the arc ion-plating process, 243
- Influence of ion energy and flux composition on the properties of plasma-deposited amorphous C and hydrogenated amorphous C films, 246
- Laser-induced PVD of diamond-like C films, 233
- Optical and electronic properties of amorphous diamond, 782
- Non-diamond carbon phases in plasma-assisted deposition of crystalline diamond films: a Raman study, 1257
- Study of the optical properties of diamond-like coatings prepared by Laser-Arc, 1424
- The dilution effect of noble gases on the structure and composition of CVD diamond films, 531

Amorphous hydrogenated carbon
- Analysis of growth process of a-C:H layers, 1344
- Bipolar transistor action from an amorphous carbon/silicon heterojunction emitter, 1445
- Comparison of laser and O_2 plasma etching of diamond-like C films, 211
- Deposition of dense C:H films at elevated substrate temperature, 251
- Effects of diamond-like hydrocarbon films on rolling contact fatigue of bearing steels, 898
- Effects of fluorine implantation into a-C:H thin films, 580
- Electronic properties of a-C:H, 1360
- Influence of π-bonded clusters on the electronic properties of diamond-like C films, 259
- Influence of ion energy and flux composition on the properties of plasma-deposited amorphous C and hydrogenated amorphous C films, 246
- Investigation of DLC films for protection and stabilization of selenium-containing photoreceptors in electrophotography, 667
- Ion energy distributions from electron cyclotron resonance methane plasmas, 378
- Mechanical and thermophysical properties of DLC films with different sp^3/sp^2 ratios, 890
- On the growth process of hydrogenated amorphous C films on Si, 229
- Photoluminescence investigation of a-C:H thin films, 670
- Properties and stability of DLC films related to bonded and unbonded H, 673
- R.f. plasma-assisted CVD of DLC films on complex geometries, 272
- The effect of deposition parameters on the compressive stress in a-C:H thin films, 885

Annealing
- Amorphous SiC PVD coatings, 528
- Catalytic interaction of Fe, Ni and Pt with diamond films, 904
- Correlation of interface chemistry to electrical properties of metal contacts on diamond, 963
- Evolution of the structure of ultrafine SiC-laser-formed powders with synthesis conditions, 486
- Inhomogeneous distribution of nitrogen impurities in {111} growth sectors of high pressure synthetic diamond, 1420
- Ion beam modification of diamond, 621
- Ni in diamond, 130
- Nucleation and growth of diamond on cemented carbides by hot-filament CVD, 317
- Ohmic contacts to epitaxial and natural diamond, 1319
- Positron lifetime investigations of diamond films, 1479

Ti carbide rectifying contacts on B-doped polycrystalline diamond, 37
Vacancy complexes in diamond, 80
Application
Application of diamond substrates for advanced high density packaging, 1051
Diamond windows for IR applications in adverse environments, 1024
Investigation of DLC films for protection and stabilization of selenium-containing photoreceptors in electrophotography, 667
OBIC measurements on planar high voltage p^+–n junctions with DLC films as passivation layer, 778
Research and developments in the field of diamond films in Russia, 65
Self-propagating high-temperature synthesis, 207
Uniform diamond coatings on 4 in Si wafers, 1211
Atomic hydrogen
Diamond growth by methane injection into hydrogen–oxygen flames, 169
H dissociation in a microwave discharge for diamond deposition, 25
Influence of atomic H gradients on growth rate and nucleation of diamond produced by microwave plasma assisted deposition, 298
Passivation of boron acceptor in diamond by atomic hydrogen: molecular-orbital linear-combination-of-atomic-orbitals simulation and experimental data, 1516
Role of atomic H in preventing surface reconstruction and sp^2 bond formation during CVD of diamond, 41
Temperature measurement of atomic H produced by hot-filament dissociation in a CH_4–H_2 mixture, 481
Atomic species
Studies of the optical emission from a hydrogen–hydrocarbon r.f. plasma jet stream during diamond film deposition, 347

Band-structure
Optical spectra of diamond-like carbon films in the energy region between 1 and 13 eV, 1387
Behaviour
Tribological behaviour of DLC coatings at high rates of sliding, 866
Wear behaviours of various diamond-coated cutting tools under different deposition conditions, 928
Bonding
Ab initio study of hydrocarbons on diamond (111), 949
Elastic characteristics of DLC coatings, 869
Optical spectra of diamond-like carbon films in the energy region between 1 and 13 eV, 1387
Boron doping
A diamond driver-active load pair fabricated by ion implantation, 1341
Aerosol doping of flame-grown diamond films, 1078
Effect of B incorporation on the quality of MPCVD diamond films, 742
Electron paramagnetic resonance of boron-implanted natural diamonds and epitaxial diamond films, 1164
Excitonic recombination radiation as characterization of diamonds using cathodoluminescence, 100
Fabrication process development and characterization of polycrystalline diamond film resistors, 808
Passivation of boron acceptor in diamond by atomic hydrogen: molecular-orbital linear-combination-of-atomic-orbitals simulation and experimental data, 1516
Photoluminescence and cathodoluminescence studies of semiconducting diamond, 87
Piezoresistive effect of B-doped diamond thin films, 1096
Positron lifetime investigations of diamond films, 1479
Properties and texture of B-doped diamond films as thermal sensor, 793
Radiation damage and electrical properties of ion-implanted CVD diamond, 634
Reflection electron microscope and scanning tunneling microscope observations of CVD diamond (001) surfaces, 1271
Trap states elucidated by a.c. conductance measurement in polycrystalline CVD diamond films, 803
Boron nitride
Growth of cubic B nitride and B–C–N coatings using N-trimethylborazine in an electron cyclotron resonance plasma process, 201
Buffer layers
Diamond nucleation on steel substrates, 361
Bulk diamond
Diamond windows for IR applications in adverse environments, 1024
Thermal expansion of synthetic diamond crystals at low temperatures, 859
Young's modulus and Poisson's ratio of CVD diamond, 918

Carbide
An X-ray photoelectron spectroscopy study of the surface layers between diamond crystallites and Si substrate deposited by microwave-plasma-assisted CVD, 558
Correlation of interface chemistry to electrical properties of metal contacts on diamond, 963
Ni–chemical vapour-deposited diamond interface studied by electron energy loss spectroscopy, 537
Some aspects in diamond synthesis, 500
Carbon
Localised vibrational modes in diamonds grown from mixed C isotopes, 136
Carbon dioxide
Diamond synthesis by CO_2 laser irradiation, 190
Catalytic processes
Catalytic interaction of Fe, Ni and Pt with diamond films, 904
New non-metallic catalysts for the synthesis of high pressure, high temperature diamond, 183
Ni–chemical vapour-deposited diamond interface studied by electron energy loss spectroscopy, 537
Cathodoluminescence
Cathodoluminescence of epitaxial diamond films, 762
Excitonic recombination radiation as characterization of diamonds using cathodoluminescence, 100
Photoluminescence and cathodoluminescence studies of semiconducting diamond, 87
Preferential incorporation of defects in monocrystalline diamond films, 92
Temperature dependence of cathodoluminescence from CVD diamond, 1
The influence of oxygen, in gas mixtures and various substrate positions, on the broad cathodoluminescence bands of MPCVD diamond films, 737

Topographic methods for studying defects in diamonds, 106

Characterization
- A simple and sensitive way to determine C film thickness, 893
- An X-ray photoelectron spectroscopy study of the surface layers between dimaond crystallites and Si substrate deposited by microwave-plasma-assisted CVD, 558
- Analysis of CVD diamond grain boundaries using TEM and parallel electron energy loss spectroscopy in a scanning transmission electron microscope, 1004
- Characterization of catalytically synthesized turbostratic C films used for improved rates of diamond nucleation, 225
- Characterization of diamond films deposited using $C_3H_6O_x$–H_2 gas mixtures, 732
- Characterization of ion-beam-deposited DLC films, 584
- Characterization of laser-irradiated surfaces of a polycrystalline diamond film with an atomic force microscope, 924
- Diamond deposition from an Ar–CCl_4–H_2 plasma jet at 13.3 kPa, 342
- Diamond deposition with Ar–CO_2–CH_4–H_2 plasma jets, 337
- Diamond device delineation via excimer laser patterning, 829
- Electrical properties of diamond-like C–Si heterojunctions manufactured under ultraclean conditions, 788
- Fabrication process development and characterization of polycrystalline diamond film resistors, 808
- High quality homoepitaxial growth of diamond films, 713
- Investigation of surface preparation for diamond deposition on Mo substrates by secondary ion mass spectrometry, 958
- Isothermal capacitance transient spectroscopy study of defect states in polycrystalline diamond films, 1179
- Low amplitude oscillating sliding wear on CVD diamond coatings, 879
- Microwave plasma CVD of high purity diamond films, 402
- Ni–chemical vapour-deposited diamond interface studied by electron energy loss spectroscopy, 537
- Nickel in diamond: an annealing study, 130
- On the growth process of hydrogenated amorphous C films on Si, 229
- Photoelectron diffraction analysis of diamond and metal-diamond interfaces, 548
- Photoluminescence investigation of a-C:H thin films, 670
- Possible technique for the characterization of diamond films using an ultrasonic resonance technique, 977
- Preferential incorporation of defects in monocrystalline diamond films, 92
- Production and characterization of d.c. and h.f. plasma jet diamond films, 468
- Properties and texture of B-doped diamond films as thermal sensor, 793
- ^1H NMR studies on the effects of annealing on CVD diamond, 126
- Self-propagating high-temperature synthesis, 207
- Structural investigation of low energy ion beam deposited diamond-like films, 1439
- Synchrotron spike topography of natural Type Ia diamond, 115
- Topographic methods for studying defects in diamonds, 106
- Type IIb diamond thin films deposited onto near-colorless natural gem diamonds, 70
- X-ray diffraction imaging of man-made and natural diamond, 121
- Young's modulus and Poisson's ratio of CVD diamond, 918

Chemical characterization
- Micromechanical properties of diamond films deposited by microwave-plasma-enhanced CVD, 933
- Photo-ionisation threshold yields for the pulsed laser irradiation of diamond films at 266 nm, 1430

Chemical vapour deposition (CVD)
- *Ab initio* energetics of CVD growth reactions on the three low-index surfaces of diamond, 1493
- Analysis of CVD diamond grain boundaries using TEM and parallel electron energy loss spectroscopy in a scanning transmission electron microscope, 1004
- Behaviour of Co binder phase during diamond deposition on WC–Co substrate, 910
- Calorimetric absorption spectroscopy and photoluminescence study of defects in diamond, 699
- Cathodoluminescence of epitaxial diamond films, 762
- Comparison of the electrical properties of single-crystal and polycrystalline diamond by Hall effect and capacitance-voltage measurements, 841
- CO_2-laser-induced gas-phase synthesis of micron-sized diamond powders, 174
- CVD and characterization of smooth {100} faceted diamond films, 158
- Defects in CVD diamond films studied by electron spin resonance and Raman spectroscopy, 722
- Deposition of DLC films by photon-enhanced CVD of methane using a windowless H lamp, 255
- Diamond deposition by atmospheric pressure induction plasma: effects of impinging jet fluid mechanics on film formation, 1090
- Diamond growth by hot-filament CVD: state of the art, 1277
- Diamond nucleation on steel substrates, 361
- Diamond synthesis on substrate treated by collision with particles, 323
- Electrical characteristic frequency dispersion of diamond polycrystalline films, 1336
- Enlargement of the diamond deposition area by one-cathode three-anode arc discharge plasma jet CVD
- Epitaxial nucleation of diamond on β-SiC via bias-enhanced microwave plasma CVD, 142
- Fourier transform IR emission spectroscopy of diamond CVD, 708
- Growth of cubic B nitride by CVD and high-pressure high-temperature synthesis, 197
- Growth of diamond thin films by ECR plasma-assisted CVD at low pressures and temperatures, 1355
- High frequency bandpass filter using polycrystalline diamond, 1197
- Hot-filament CVD of diamond on SiAlON at pressures up to 500 Torr, 1263
- Influence of ion energy and flux composition on the properties of plasma-deposited amorphous C and hydrogenated amorphous C films, 246
- Investigation of nucleation centres in diamond CVD with spatially resolved XPS, 1525
- Large-area diamond deposition and brazing of the diamond films on steel substrates for tribological applications, 612
- Liquid and solid erosion properties of diamond, 606
- New method for selective growth of diamonds by microwave plasma CVD, 1490

Nucleation mechanisms of diamond in plasma CVD, 328
Nucleation of diamond on vapour deposited graphite, 383
On the growth process of hydrogenated amorphous C films on Si, 229
Plasma diagnosis in d.c.-biased hot-filament-assisted CVD by double-probe method, 476
Positron lifetime investigations of diamond films, 1479
Post-depositional diamond etching, 683
Properties of stoichiometric and Si-rich polycrystalline SiC films deposited by CVD on various substrates, 1330
Role of atomic H in preventing surface reconstruction and sp^2 bond formation during CVD of diamond, 41
^1H NMR studies on the effects of annealing on CVD diamond, 126
Thinning and patterning of CVD diamond films by diffusional reaction, 1038
Young's modulus and Poisson's ratio of CVD diamond, 918

Cold plasma
The effect of deposition parameters on the compressive stress in a-C:H thin films, 885

Combustion flame CVD
A comparative study of laminar and turbulent oxygen–acetylene flames for diamond deposition, 393
Aerosol doping of flame-grown diamond films, 1078
Controlled deposition of diamond from an acetylene–oxygen combustion flame, 1149
Crystal growth and gas ratio effect of diamond films synthesized by oxyacetylene flames, 491
CVD diamond growth mechanisms as identified by surface topography, 997
Diamond growth by methane injection into hydrogen–oxygen flames, 169
Temperature dependence of cathodoluminescence from CVD diamond, 1
The numerical simulation of diamond synthesis from acetylene flames, 7

Combustion synthesis
Implementation of large-scale deposition of diamond films by combustion synthesis, 304

Composite films
The deposition and characterization of β-SiC and diamond/β-SiC composite films, 523

Crystal chemistry
Diamond formation from a system of SiC and a metal, 508

Crystal growth
Crystal growth and gas ratio effect of diamond films synthesized by oxyacetylene flames, 491
Effect of B incorporation on the quality of MPCVD diamond films, 742
Effect of the buoyancy force on diamond formation during synthesis under a high pressure, 496
Evaluation of d.c.-plasma jet CVD for diamond coatings on tungsten carbide based cutting plates, 1464
Growth of diamond thin films by ECR plasma-assisted CVD at low pressures and temperatures, 1355
Microcrystalline diamond phase by laser ablation of graphite, 425

Crystalline inclusion
Electrical properties of diamond-like C–Si heterojunctions manufactured under ultraclean conditions, 788
The geology of diamond, 75

Cubic boron nitride
Compressive stress induced formation of cubic B nitride, 970
Effect of small amounts of hydrochloric acid on the synthesis of translucent sintered cubic BN, 1160
Growth of cubic B nitride and B–C–N coatings using N-trimethylborazine in an electron cyclotron resonance plasma process, 201
Growth of cubic B nitride by CVD and high-pressure high-temperature synthesis, 197
High pressure reactions and formation mechanism of cubic BN in the system BN–Mg_3N_2, 1168
Influence of sputtering target material on the formation of cubic BN thin films by ion beam enhanced deposition, 512
Mechanical properties of diamond and c-BN at different temperatures and deformation rates, 1253
New scope of high pressure–high temperature synthesis of c-BN, 1409
Non-linear current–voltage characteristics of Be-doped cubic-BN polycrystals synthesized at high pressure, 1473
Preparation of c-BN containing films by reactive r.f. sputtering, 1206

Cutting tool
Behaviour of Co binder phase during diamond deposition on WC–Co substrate, 910
Wear behaviours of various diamond-coated cutting tools under different deposition conditions, 928

CVD microwave
Ti carbide rectifying contacts on B-doped polycrystalline diamond, 37

DC-plasma CVD
Evaluation of d.c.-plasma jet CVD for diamond coatings on tungsten carbide based cutting plates, 1464
Investigation of rotating d.c. discharge for diamond deposition, 357
Possible technique for the characterization of diamond films using an ultrasonic resonance technique, 977
Production and characterization of d.c. and h.f. plasma jet diamond films, 468
Recent results on the deposition of diamond thin films by arcjet plasmas and diagnostic measurements of the plasma-surface region, 443
Supersonic DC-arcjet synthesis of diamond, 454
UV laser processing of diamond films, 291

Defects
Electrical properties of high quality diamond films, 820
Electron paramagnetic resonance of boron-implanted natural diamonds and epitaxial diamond films, 1164
Preferential incorporation of defects in monocrystalline diamond films, 92
Radiation damage and electrical properties of ion-implanted CVD diamond, 634
Space-charge-limited current flow and trap density in undoped diamond films, 825
Study of crystal defects in natural diamond, 1239
Temperature dependence of cathodoluminescence from CVD diamond, 1
The influence of oxygen, in gas mixtures and various substrate positions, on the broad cathodoluminescence bands of MPCVD diamond films, 737
Thermal conductivity and the microstructure of state-of-the-art CVD diamond, 1059
Ti carbide rectifying contacts on B-doped polycrystalline diamond, 37

Topographic methods for studying defects in diamonds, 106
XRD imaging of man-made and natural diamond, 121
Deposition
Wear behaviours of various diamond-coated cutting tools under different deposition conditions, 928
Deposition mechanism
Ab initio energetics of CVD growth reactions on the three low-index surfaces of diamond, 1493
Analysis of growth process of a-C:H layers, 1344
Deposition mechanisms for promoting sp^3 bonding in DLC, 984
Deposition of DLC films by photon-enhanced CVD of methane using a windowless H lamp, 255
Effect of substrate pretreatment on diamond deposition, 758
Implementation of large-scale deposition of diamond films by combustion synthesis, 304
Influence on diamond nucleation of the C concentration near the substrate surface, 19
Low-temperature deposition of diamond using chloromethane in a hot-filament CVD reactor, 365
Non-CVD methods of diamond growth at low pressures, 646
The influence of substrate temperature during IBD on the diamond-like or graphitic nature of C films, 285
The numerical simulation of diamond synthesis from acetylene flames, 7
Device
Autocorrelation function of velocity fluctuations and noise in diamond, 15
Device properties of homoepitaxially grown diamond, 1033
Diamond device delineation via excimer laser patterning, 829
Diamond metal–semiconductor–metal ultraviolet photodetectors, 1020
Electrical properties of undoped large-grain and small-grain diamond films, 812
Fabrication of diamond thin-film thermistors for high temperature applications, 816
High frequency bandpass filter using polycrystalline diamond, 1197
Piezoresistive effect of B-doped diamond thin films, 1096
Plasma-assisted CVD of diamond films by hollow cathode arc discharge, 413
Diamond
A comparative study of laminar and turbulent oxygen–acetylene flames for diamond deposition, 393
A simple and sensitive way to determine C film thickness, 893
Ab initio energetics of CVD growth reactions on the three low-index surfaces of diamond, 1493
Ab initio study of hydrocarbons on diamond (111), 949
Adhesion strength of diamond film on cemented carbide insert, 1391
An r.f. plasma jet applied to diamond, glassy C and Si carbide film synthesis, 517
An X-ray photoelectron spectroscopy study of the surface layers between diamond crystallites and Si substrate deposited by microwave-plasma-assisted CVD, 558
Analysis and modeling of diamond heterogeneous nucleation kinetics, 990
Analysis using high energy beam techniques of surface carbonaceous layers of Si and Ta substrates used in CVD synthesis of diamond, 1365
Behaviour of Co binder phase during diamond deposition on WC–Co substrate, 910
Catalytic interaction of Fe, Ni and Pt with diamond films, 904
Cathodoluminescence of epitaxial diamond films, 762
Characterization of catalytically synthesized turbostratic C films used for improved rates of diamond nucleation, 225
Characterization of laser-irradiated surfaces of a polycrystalline diamond film with an atomic force microscope, 924
Comparison of the electrical properties of single-crystal and polycrystalline diamond by Hall effect and capacitance-voltage measurements, 841
Conduction in ion-implanted single-crystal diamond, 847
Controlled deposition of diamond from an acetylene–oxygen combustion flame, 1149
CO_2-laser-induced gas-phase synthesis of micron-sized diamond powders, 174
Crystal growth and gas ratio effect of diamond films synthesized by oxyacetylene flames, 491
CVD diamond growth mechanisms as identified by surface topography, 997
Defects in CVD diamond films studied by electron spin resonance and Raman spectroscopy, 722
Degradation mechanisms of passivated and unpassivated diamond thermistors, 1100
Determination of the optical constants of fine grained diamond layers on Si substrates using curve fitting-procedures, 704
Determination of the overall nucleation density on W, 952
Device properties of homoepitaxially grown diamond, 1033
Diamond CVD using Ta filaments in H_2–CH_4–O_2 gas mixtures, 373
Diamond deposition by atmospheric pressure induction plasma: effects of impinging jet fluid mechanics on film formation, 1090
Diamond deposition from an Ar–CCl_4–H_2 plasma jet at 13.3 kPa, 342
Diamond deposition on Cr, Co and Ni substrates by microwave plasma CVD, 1505
Diamond deposition with Ar–CO_2–CH_4–H_2 plasma jets, 337
Diamond device delineation via excimer laser patterning, 829
Diamond formation from a system of SiC and a metal, 508
Diamond growth by hot-filament CVD: state of the art, 1277
Diamond growth by methane injection into hydrogen–oxygen flames, 169
Diamond homoepitaxy by hot filament CVD, 462
Diamond membranes with controlled stress for submicron lithography, 1191
Diamond metal–semiconductor–metal ultraviolet photodetectors, 1020
Diamond nucleation on steel substrates, 361
Diamond synthesis on a metal substrate, 1083
Diamond synthesis on substrate treated by collision with particles, 323
Diamond-infiltrated C–C composites, 1069
Diamond–metal composite coatings on cemented-carbide tools, 617

Effect of B incorporation on the quality of MPCVD diamond films, 742
Effect of substrate pretreatment on diamond deposition, 758
Effect of the buoyancy force on diamond formation during synthesis under a high pressure, 496
Elastic properties of thin polycrystalline diamond films, 939
Electrical conduction mechanisms in polycrystalline CVD diamond films, 797
Electrical properties of undoped large-grain and small-grain diamond films, 812
Electron paramagnetic resonance of boron-implanted natural diamonds and epitaxial diamond films, 1164
Enlargement of the diamond deposition area by one-cathode three-anode arc discharge plasma jet CVD, 1402
Epitaxial nucleation of diamond on β-SiC via bias-enhanced microwave plasma CVD, 142
Excitonic recombination radiation as characterization of diamonds using cathodoluminescence, 100
Fabrication of diamond thin-film thermistors for high temperature applications, 816
Fourier transform IR emission spectroscopy of diamond CVD, 708
Geometric modeling of the diamond–β-SiC heteroepitaxial interface, 590
Growth of diamond thin films by ECR plasma-assisted CVD at low pressures and temperatures, 1355
H dissociation in a microwave discharge for diamond deposition, 25
Heteroepitaxial diamond growth on (100) Si, 1112
High frequency bandpass filter using polycrystalline diamond, 1197
High quality homoepitaxial growth of diamond films, 713
Hot-filament CVD of diamond on SiAlON at pressures up to 500 Torr, 1263
Improvement in IR properties of CVD diamond films by smoothening with KrF excimer radiation, 678
Improvement on adhesion strength of diamond film on cemented carbide by heated intermediate layer, 1156
Influence of atomic H gradients on growth rate and nucleation of diamond produced by microwave plasma assisted deposition, 298
Influence on diamond nucleation of the C concentration near the substrate surface, 19
Initial stages in the growth of polycrystalline diamond on Si, 1467
Investigation of diamond C(111)-(2 × 1) surface exposed to H and hydrocarbon species using second-harmonic generation and sum frequency generation, 567
Investigation of diamond thin film growth on ferrous surfaces, 353
Investigation of surface preparation for diamond deposition on Mo substrates by secondary ion mass spectrometry, 958
Ion and laser induced modification of optical and structural properties of i-C films, 1379
Ion beam modification of diamond, 621
Ion etching behaviour and surface binding energies of hard diamond-like C and microwave CVD diamond films, 266
Isothermal capacitance transient spectroscopy study of defect states in polycrystalline diamond films, 1179
Large-area diamond deposition and brazing of the diamond films on steel substrates for tribological applications, 612
Liquid and solid erosion properties of diamond, 606
Mechanical properties of diamond and c-BN at different temperatures and deformation rates, 1253
Microcrystalline diamond phase by laser ablation of graphite, 425
Micromechanical properties of diamond films deposited by microwave-plasma-enhanced CVD, 933
Microwave plasma CVD of high purity diamond films, 402
New method for selective growth of diamonds by microwave plasma CVD, 1490
^{1}H NMR studies of the effects of annealing on CVD diamond, 126
Non-CVD methods of diamond growth at low pressures, 646
Nucleation mechanisms of diamond in plasma CVD, 328
Nucleation of diamond on vapour deposited graphite, 383
Ohmic contacts to epitaxial and natural diamond, 1319
Optical reflection and angle-resolved light scattering from textured polycrystalline diamond films, 1248
Photoelectron diffraction analysis of diamond and metal-diamond interfaces, 548
Photo-ionisation threshold yields for the pulsed laser irradiation of diamond films at 266 nm, 1430
Photoluminescence and cathodoluminescence studies of semiconducting diamond, 87
Piezoresistive effect of B-doped diamond thin films, 1096
Plasma-assisted CVD of diamond films by hollow cathode arc discharge, 413
Positron lifetime investigations of diamond films, 1479
Post-depositional diamond etching, 683
Preferential incorporation of defects in monocrystalline diamond films, 92
Preparation of smooth and nanocrystalline diamond films, 449
Production and characterization of d.c. and h.f. plasma jet diamond films, 468
Properties and texture of B-doped diamond films as thermal sensor, 793
Raman signal *vs.* preparation conditions of C-implanted-and-excimer-laser-annealed Cu thin films, 746
Rectifying diodes with a metal/intrinsic semiconductor/semiconductor structure using polycrystalline diamond films, 1107
Role of atomic H in preventing surface reconstruction and sp^2 bond formation during CVD of diamond, 41
Space-charge-limited current flow and trap density in undoped diamond films, 825
Spectroscopic ellipsometry measurements of the diamond-crystalline Si interface in CVD polycrystalline diamond films, 728
Studies of the optical emission from a hydrogen–hydrocarbon r.f. plasma jet stream during diamond film deposition, 347
Study of crystal defects in natural diamond, 1239
Superpolishing of diamond, 943
Supersonic DC-arcjet synthesis of diamond, 454
Surface-sensitive characterization of diamond by ionization electron energy loss spectroscopy, 542
Synthesis of diamond using iron catalyst by r.f. plasma CVD, 656
Systematic investigation of plasma emission spectra during microwave diamond deposition from CH_4–CO_2 and C_2H_2–CO_2 gas mixtures, 389

Temperature dependence of cathodoluminescence from CVD diamond, 1
The dilution effect of noble gases on the structure and composition of CVD diamond films, 531
The effect of substrate bias voltage on the nucleation of diamond crystals in a microwave plasma assisted CVD process, 407
The effect of surface preparation on the nucleation of diamond on Si, 432
The growth of diamond using halogenated methane, 311
The influence of oxygen, in gas mixtures and various substrate positions, on the broad cathodoluminescence bands of MPCVD diamond films, 737
Thinning and patterning of CVD diamond films by diffusional reaction, 1038
Topographic methods for studying defects in diamonds, 106
Trap states elucidated by a.c. conductance measurement in polycrystalline CVD diamond films, 803
Trapping of hydrogen in diamond, 1414
UV laser processing of diamond films, 291
Vacancy complexes in diamond, 80
Variation of the Raman diamond line shape with crystallographic orientation of isolated CVD diamond crystals, 753
XRD imaging of man-made and natural diamond, 121

Diamond ages
The geology of diamond, 75

Diamond films
Characterization of diamond films for optical coatings, 694
Chemical vapour deposition and characterization of smooth {100} faceted diamond films, 158
Research and developments in the field of diamond films in Russia, 65
X-Ray study of the interface layer between low temperature deposited diamond film and the Si substrate, 575

Diamond formation depths
The geology of diamond, 75

Diamond nucleation
Diamonds in the USA, 59

Diamond substrates
Application of diamond substrates for advanced high density packaging, 1051

Diamond synthesis
Diamond synthesis by CO_2 laser irradiation, 190
Some aspects in diamond synthesis, 500

Diamond/β-SiC
The deposition and characterization of β-SiC and diamond/β-SiC composite films, 523

Diamond-like carbon
A simple and sensitive way to determine C film thickness, 893
Bipolar transistor action from an amorphous carbon/silicon heterojunction emitter, 1445
Characterization of interfaces between amorphous hydrogenated C films and steel substrates using high resolution cross-sectional TEM, 562
Characterization of ion-beam-deposited diamond-like C films, 584
Characterization of thin diamond-like carbon films by ultrasonic surface waves, 1396
Deposition and properties of polycluster diamond films, 1327
Deposition mechanisms for promoting sp^3 bonding in DLC, 984
Deposition of carbon films by a filtered cathodic arc, 1350
Depth profiles of carbon, nitrogen and oxygen on carbon coated steel surfaces made by ion beam assisted deposition, 1175
DLC films by plasma assisted CVD near room temperature, 1483
Effects of diamond-like hydrocarbon films on rolling contact fatigue of bearing steels, 898
Elastic characteristics of DLC coatings, 869
Electrical properties of diamond-like C–Si heterojunctions manufactured under ultraclean conditions, 788
Electron energy loss study of diamond-like and amorphous C films, 873
Growth of cubic B nitride and B–C–N coatings using N-trimethylborazine in an electron cyclotron resonance plasma process, 201
H-free amorphous C coatings deposited by the arc ion-plating process, 243
Interfacial electrical properties of DLC/GaAs heterostructures, 1459
Ion and laser induced modification of optical and structural properties of i-C films, 1379
Ion etching behaviour and surface binding energies of hard diamond-like carbon and microwave CVD diamond films, 266
Laser-induced PVD of DLC films, 233
Non-diamond carbon phases in plasma-assisted deposition of crystalline diamond films: a Raman study, 1257
OBIC measurements on planar high voltage p^+–n junctions with DLC films as passivation layer, 778
Optical spectra of diamond-like carbon films in the energy region between 1 and 13 eV, 1387
Properties and stability of DLC films related to bonded and unbonded H, 673
Service properties of cutting tools hardened with a diamond-like coating, 1434
Stress relief behaviour of DLC films on glasses, 218
Stresses in DLC films, 1519
Structural investigation of low energy ion beam deposited diamond-like films, 1439
Study of the optical properties of diamond-like coatings prepared by Laser-Arc, 1424
The effect of deposition parameters on the compressive stress in a-C:H thin films, 885
The influence of substrate temperature during IBD on the diamond-like or graphitic nature of C films, 285
Tribological behaviour of DLC coatings at high rates of sliding, 866
Tribological properties of DLC and related materials, 597

Diode
Device properties of homoepitaxially grown diamond, 1033

Dislocations
Study of crystal defects in natural diamond, 1239

Doping
Ion beam modification of diamond, 621

Doping n-type
Conduction in ion-implanted single-crystal diamond, 847
Radiation damage and electrical properties of ion-implanted CVD diamond, 634
Type IIb diamond thin films deposited onto near-colorless natural gem diamonds, 70

Doping p-type
Aerosol doping of flame-grown diamond films, 1078

Device properties of homoepitaxially grown diamond, 1033
Effect of B incorporation on the quality of MPCVD diamond films, 742
Non-linear current–voltage characteristics of Be-doped cubic-BN polycrystals synthesized at high pressure, 1473
Radiation damage and electrical properties of ion-implanted CVD diamond, 634

Eclogitic diamond
The geology of diamond, 75
Electrical conductivity
Conduction in ion-implanted single-crystal diamond, 847
Effects of fluorine implantation into a-C : H thin films, 580
Non-linear current–voltage characteristics of Be-doped cubic-BN polycrystals synthesized at high pressure, 1473
Electrical properties
Autocorrelation function of velocity fluctuations and noise in diamond, 15
Bipolar transistor action from an amorphous carbon/silicon heterojunction emitter, 1445
Comparison of the electrical properties of single-crystal and polycrystalline diamond by Hall effect and capacitance-voltage measurements, 841
Degradation mechanisms of passivated and unpassivated diamond thermistors, 1100
Diamond radiation detectors, 1012
Diamond-infiltrated C–C composites, 1069
Electrical characteristic frequency dispersion of diamond polycrystalline films, 1336
Electrical conduction mechanisms in polycrystalline CVD diamond films, 797
Electrical properties of diamond-like C–Si heterojunctions manufactured under ultraclean conditions, 788
Electrical properties of high quality diamond films, 820
Electrical properties of undoped large-grain and small-grain diamond films, 812
Electronic properties of a-C : H, 1360
Fabrication of diamond thin-film thermistors for high temperature applications, 816
Fabrication process development and characterization of polycrystalline diamond film resistors, 808
Interfacial electrical properties of DLC/GaAs heterostructures, 1459
Investigation of DLC films for protection and stabilization of selenium-containing photoreceptors in electrophotography, 667
Isothermal capacitance transient spectroscopy study of defect states in polycrystalline diamond films, 1179
OBIC measurements on planar high voltage p^+–n junctions with DLC films as passivation layer, 778
Optical and electronic properties of amorphous diamond, 782
Piezoresistive effect of B-doped diamond thin films, 1096
Properties and stability of DLC films related to bonded and unbonded H, 673
Properties and texture of B-doped diamond films as thermal sensor, 793
Radiation damage and electrical properties of ion-implanted CVD diamond, 634
Space-charge-limited current flow and trap density in undoped diamond films, 825
Stresses in DLC films, 1519
Structural, optical and electronic properties of wide band gap amorphous C–Si alloys, 773
Temporally resolved response of a natural type IIA diamond detector to single-particle excitation, 835
Trap states elucidated by a.c. conductance measurement in polycrystalline CVD diamond films, 803
UV laser processing of diamond films, 291
Electron cyclotron resonance plasma
Deposition of dense C : H films at elevated substrate temperature, 251
Growth of cubic B nitride and B–C–N coatings using N-trimethylborazine in an electron cyclotron resonance plasma process, 201
Growth of diamond thin films by ECR plasma-assisted CVD at low pressures and temperatures, 1355
Influence of the electron cyclotron resonance microwave plasma on growth and properties of diamond-like C films deposited onto r.f. biased substrates, 397
Ion energy distributions from electron cyclotron resonance methane plasmas, 378
Electron energy loss
Electron energy loss study of diamond-like and amorphous C films, 873
Electron spectroscopy
Kinetics of diamond growth on Si(100) substrate monitored by electron spectroscopy, 552
Electron-assisted CVD
Plasma-assisted CVD of diamond films by hollow cathode arc discharge, 413
Electronic devices
A diamond driver-active load pair fabricated by ion implantation, 1341
Autocorrelation function of velocity fluctuations and noise in diamond, 15
Bipolar transistor action from an amorphous carbon/silicon heterojunction emitter, 1445
Degradation mechanisms of passivated and unpassivated diamond thermistors, 1100
Diamond radiation detectors, 1012
Growth and application of cubic SiC, 1043
OBIC measurements on planar high voltage p^+–n junctions with DLC films as passivation layer, 778
Ellipsometry
Spectroscopic ellipsometry measurements of the diamond-crystalline Si interface in CVD polycrystalline diamond films, 728
Energy gap
Bipolar transistor action from an amorphous carbon/silicon heterojunction emitter, 1445
Effects of fluorine implantation into a-C : H thin films, 580
Optical spectra of diamond-like carbon films in the energy region between 1 and 13 eV, 1387
Epitaxy
Cathodoluminescence of epitaxial diamond films, 762
Device properties of homoepitaxially grown diamond, 1033
Epitaxial nucleation of diamond on β-SiC via bias-enhanced microwave plasma CVD, 142
Ohmic contacts to epitaxial and natural diamond, 1319
Photoelectron diffraction analysis of diamond and metal-diamond interfaces, 548
Reflection electron microscope and scanning tunnelling microscope observations of CVD diamond (001) surfaces, 1271
XRD imaging of man-made and natural diamond, 121

Equilibrium geometries
Passivation of boron acceptor in diamond by atomic hydrogen: molecular-orbital linear-combination-of-atomic-orbitals simulation and experimental data, 1516
Etching
Behaviour of Co binder phase during diamond deposition on WC–Co substrate, 910
Catalytic interaction of Fe, Ni and Pt with diamond films, 904
Characterization of laser-irradiated surfaces of a polycrystalline diamond film with an atomic force microscope, 924
Diamond device delineation via excimer laser patterning, 829
Diamond membranes with controlled stress for submicron lithography, 1191
Nucleation and growth of diamond on cemented carbides by hot-filament CVD, 317
Piezoresistive effect of B-doped diamond thin films, 1096
Thinning and patterning of CVD diamond films by diffusional reaction, 1038
Excitons
Excitonic recombination radiation as characterization of diamonds using cathodoluminescence, 100

Free-standing
A comparative study of laminar and turbulent oxygen–acetylene flames for diamond deposition, 393
Diamond membranes with controlled stress for submicron lithography, 1191
Free standing white diamond for thermal and optical applications, 1064
Liquid and solid erosion properties of diamond, 606
Thermal conductivity and the microstructure of state-of-the-art CVD diamond, 1059
Friction
Tribological properties of DLC and related materials, 597
Fullerenes
Fullerenes and diamond, 1203

Gas phase chemistry
Diamond CVD using Ta filaments in H_2–CH_4–O_2 gas mixtures, 373
Diamond deposition by atmospheric pressure induction plasma: effects of impinging jet fluid mechanics on film formation, 1090
Supersonic DC-arcjet synthesis of diamond, 454
Gas phase diagnostics
Degenerate four-wave mixing diagnostics of atmospheric pressure diamond deposition, 661
Diamond growth by methane injection into hydrogen–oxygen flames, 169
Gas phase reactions
CO_2-laser-induced gas-phase synthesis of micron-sized diamond powders, 174
Gas phase species
Diamond deposition with Ar–CO_2–CH_4–H_2 plasma jets, 337
Systematic investigation of plasma emission spectra during microwave diamond deposition from CH_4–CO_2 and C_2H_2–CO_2 gas mixtures, 389
Gas-phase reactors
H dissociation in a microwave discharge for diamond deposition, 25

Glasses
Stress relief behaviour of DLC films on glasses, 218
Graphite
Diamond-infiltrated C–C composites, 1069
Nucleation of diamond on vapour deposited graphite, 383
Study of high pressure diamond synthesis by Mössbauer spectroscopy, 1322
Growth
A comparative study of laminar and turbulent oxygen–acetylene flames for diamond deposition, 393
Diamond CVD using Ta filaments in H_2–CH_4–O_2 gas mixtures, 373
Diamond growth by methane injection into hydrogen–oxygen flames, 169
Diamonds in the USA, 59
Effect of the buoyancy force on diamond formation during synthesis under a high pressure, 496
Growth of cubic B nitride and B–C–N coatings using N-trimethylborazine in an electron cyclotron resonance plasma process, 201
Kinetics of diamond growth on Si(100) substrate monitored by electron spectroscopy, 552
Non-CVD methods of diamond growth at low pressures, 646
Nucleation and growth of diamond using a computer-controlled oxy-acetylene torch, 438
On the growth process of hydrogenated amorphous C films on Si, 229
Raman signal *vs.* preparation conditions of C-implanted-and-excimer-laser-annealed Cu thin films, 746
Growth morphology
Analysis of growth process of a-C : H layers, 1344
Behaviour of Co binder phase during diamond deposition on WC–Co substrate, 910
Characterization of diamond films deposited using $C_3H_6O_x$–H_2 gas mixtures, 732
Crystal growth and gas ratio effect of diamond films synthesized by oxyacetylene flames, 491
Diamond homoepitaxy by CVD, 147
High pressure reactions and formation mechanism of cubic BN in the system BN–Mg_3N_2, 1168
Influence of the electron cyclotron resonance microwave plasma on growth and properties of DLC films deposited onto r.f. biased substrates, 397
Investigation of rotating d.c. discharge for diamond deposition, 357
Optical reflection and angle-resolved light scattering from textured polycrystalline diamond films, 1248
Systematic investigation of plasma emission spectra during microwave diamond deposition from CH_4–CO_2 and C_2H_2–CO_2 gas mixtures, 389

Halide chemistry
Diamond deposition from an Ar–CCl_4–H_2 plasma jet at 13.3 kPa, 342
Low-temperature deposition of diamond using chloromethane in a hot-filament CVD reactor, 365
Heated filament CVD
Analysis and modeling of diamond heterogeneous nucleation kinetics, 990
Analysis using high energy beam techniques of surface carbonaceous layers of Si and Ta substrates used in CVD synthesis of diamond, 1365
Characterization of catalytically synthesized turbostratic C

films used for improved rates of diamond nucleation, 225
Characterization of diamond films for optical coatings, 694
CVD diamond growth mechanisms as identified by surface topography, 997
Determination of the overall nucleation density on W, 952
Diamond CVD using Ta filaments in H_2–CH_4–O_2 gas mixtures, 373
Diamond growth by hot-filament CVD: state of the art, 1277
Diamond homoepitaxy by hot filament CVD, 462
Elastic scattering of light and reflectivity development during low pressure diamond film growth, 718
Hot-filament CVD of diamond on SiAlON at pressures up to 500 Torr, 1263
Initial stages in the growth of polycrystalline diamond on Si, 1467
Investigation of diamond C(111)-(2 × 1) surface exposed to H and hydrocarbon species using second-harmonic generation and sum frequency generation, 567
Low amplitude oscillating sliding wear on CVD diamond coatings, 879
Low-temperature deposition of diamond using chloromethane in a hot-filament CVD reactor, 365
Trapping of hydrogen in diamond, 1414
Type IIb diamond thin films deposited onto near-colorless natural gem diamonds, 70
Uniform diamond coatings on 4 in Si wafers, 1211
Heteroepitaxy
Controlled deposition of diamond from an acetylene–oxygen combustion flame, 1149
Geometric modeling of the diamond–β-SiC heteroepitaxial interface, 590
Growth and application of cubic SiC, 1043
Heteroepitaxial diamond growth on (100) Si, 1112
High pressure synthetic diamond
Ni in diamond, 130
High pressure/high temperature synthesis
Diamond formation from a system of SiC and a metal, 508
Effect of small amounts of hydrochloric acid on the synthesis of translucent sintered cubic BN, 1160
Growth of cubic B nitride by CVD and high-pressure high-temperature synthesis, 197
High pressure reactions and formation mechanism of cubic BN in the system BN–Mg_3N_2, 1168
Inhomogeneous distribution of nitrogen impurities in {111} growth sectors of high pressure synthetic diamond, 1420
New non-metallic catalysts for the synthesis of high pressure, high temperature diamond, 183
New scope of high pressure–high temperature synthesis of c-BN, 1409
Non-linear current–voltage characteristics of Be-doped cubic-BN polycrystals synthesized at high pressure, 1473
Homoepitaxy
CVD diamond growth mechanisms as identified by surface topography, 997
Diamond homoepitaxy by CVD, 147
Diamond homoepitaxy by hot filament CVD, 462
Excitonic recombination radiation as characterization of diamonds using cathodoluminescence, 100
High quality homoepitaxial growth of diamond films, 713
Hydrogen
^{1}H NMR studies on the effects of annealing on CVD diamond, 126
Hydrogen content
Trapping of hydrogen in diamond, 1414
Hydrogen desorption
Ab initio energetics of CVD growth reactions on the three low-index surfaces of diamond, 1493
Investigation of diamond C(111)-(2 × 1) surface exposed to H and hydrocarbon species using second-harmonic generation and sum frequency generation, 567
Superpolishing of diamond, 943
Hydrogen lamp
Deposition of DLC films by photon-enhanced CVD of methane using a windowless H lamp, 255

Impurities
Characterization of ion-beam deposited DLC films, 584
Luminescent characterization of radiation damage and impurities in ion-implanted natural diamond, 640
Spectroscopic ellipsometry measurements of the diamond-crystalline Si interface in CVD polycrystalline diamond films, 728
The influence of oxygen, in gas mixtures and various substrate positions, on the broad cathodoluminescence bands of MPCVD diamond films, 737
Thermal diffusivities of thin diamond films on silicon, 1185
Inductively coupled plasma torch
Degenerate four-wave mixing diagnostics of atmospheric pressure diamond deposition, 661
Diamond deposition by atmospheric pressure induction plasma: effects of impinging jet fluid mechanics on film formation, 1090
Large-area diamond deposition and brazing of the diamond films on steel substrates for tribological applications, 612
Infrared absorption
Compressive stress induced formation of cubic B nitride, 970
Diamond windows for IR applications in adverse environments, 1024
Fourier transform IR emission spectroscopy of diamond CVD, 708
Free standing white diamond for thermal and optical applications, 1064
Influence of π-bonded clusters on the electronic properties of DLC films, 259
Inhomogeneous distribution of nitrogen impurities in {111} growth sectors of high pressure synthetic diamond, 1420
Localised modes due to single nitrogen defects in mixed host isotope sythetic diamond, 1243
Preparation of c-BN containing films by reactive r.f. sputtering, 1206
Structural investigation of low energy ion beam deposited diamond-like films, 1439
In-situ characterization
Elastic scattering of light and reflectivity development during low pressure diamond film growth, 718
Investigation of diamond C(111)-(2 × 1) surface exposed to H and hydrocarbon species using second-harmonic generation and sum frequency generation, 567
In-situ diagnostics
Degenerate four-wave mixing diagnostics of atmospheric pressure diamond deposition, 661
Microwave plasma CVD of high purity diamond films, 402

Photoelectron diffraction analysis of diamond and metal-diamond interfaces, 548
Recent results on the deposition of diamond thin films by arcjet plasmas and diagnostic measurements of the plasma-surface region, 443
Insulator
New method for selective growth of diamonds by microwave plasma CVD, 1490
Space-charge-limited current flow and trap density in undoped diamond films, 825
Interface
Correlation of interface chemistry to electrical properties of metal contacts on diamond, 963
Geometric modeling of the diamond–β-SiC heteroepitaxial interface, 590
Interfacial electrical properties of DLC/GaAs heterostructures, 1459
Ni–chemical vapour-deposited diamond interface studied by electron energy loss spectroscopy, 537
OBIC measurements on planar high voltage p^+–n junctions with DLC films as passivation layer, 778
On the growth process of hydrogenated amorphous C films on Si, 229
Spectroscopic ellipsometry measurements of the diamond-crystalline Si interface in CVD polycrystalline diamond films, 728
Interfacial layers
An X-ray photoelectron spectroscopy study of the surface layers between diamond crystallites and Si substrate deposited by microwave-plasma-assisted CVD, 558
Analysis using high energy beam techniques of surface carbonaceous layers of Si and Ta substrates used in CVD synthesis of diamond, 1365
Characterization of interfaces between amorphous hydrogenated C films and steel substrates using high resolution cross-sectional TEM, 562
Improvement on adhesion strength of diamond film on cemented carbide by heated intermediate layer, 1156
Ion bombardment
Correlation of interface chemistry to electrical properties of metal contacts on diamond, 963
Deposition mechanisms for promoting sp^3 bonding in DLC, 984
Depth profiles of carbon, nitrogen and oxygen on carbon coated steel surfaces made by ion beam assisted deposition, 1175
Influence of ion energy and flux composition on the properties of plasma-deposited amorphous C and hydrogenated amorphous C films, 246
Influence of sputtering target material on the formation of cubic BN thin films by ioin beam enhanced deposition, 512
Ion energy distributions from electron cyclotron resonance methane plasmas, 378
Ion etching behaviour and surface binding energies of hard DLC and microwave CVD diamond films, 266
Non-CVD methods of diamond growth at low pressures, 646
Nucleation mechanisms of diamond in plasma CVD, 328
Preparation of c-BN containing films by reactive r.f. sputtering, 1175
Structural investigation of low energy ion beam deposited diamond-like films, 1439
Ion implantation
A diamond driver-active load pair fabricated by ion implantation, 1341
Conduction in ion-implanted single-crystal diamond, 847
Effects of fluorine implantation into a-C:H thin films, 580
Ion beam modification of diamond, 621
Depth profiles of carbon, nitrogen and oxygen on carbon coated steel surfaces made by ion beam assisted deposition, 1175
Electron paramagnetic resonance of boron-implanted natural diamonds and epitaxial diamond films, 1164
Luminescent characterization of radiation damage and impurities in ion-implanted natural diamond, 640
Non-CVD methods of diamond growth at low pressures, 646
Passivation of boron acceptor in diamond by atomic hydrogen: molecular-orbital linear-combination-of-atomic-orbitals simulation and experimental data, 1516
Radiation damage and electrical properties of ion-implanted CVD diamond, 634
Raman signal *vs.* preparation conditions of C-implanted-and-excimer-laser-annealed Cu thin films, 746
Thermal expansion of synthetic diamond crystals at low temperatures, 859
Ion-assisted evaporation
Compressive stress induced formation of cubic B nitride, 970
Depth profiles of carbon, nitrogen and oxygen on carbon coated steel surfaces made by ion beam assisted deposition, 1175
Hydrogen-free amorphous C coatings deposited by the arc ion-plating process, 243
Influence of sputtering target material on the formation of cubic BN thin films by ion beam enhanced deposition, 512
Isotopic effects
Localised modes due to single nitrogen defects in mixed host isotope synthetic diamond, 1243
Trapping of hydrogen in diamond, 1414
Isotopic purity
Influence of point defects on the thermal conductivity of diamond single crystals: state of the art, 1500
The effective free path length of phonons in diamond, 862

Kinetics
Analysis and modeling of diamond heterogeneous nucleation kinetics, 990
Determination of the overall nucleation density on W, 952
Kinetics of diamond growth on Si(100) substrate monitored by electron spectroscopy, 552
New scope of high pressure–high temperature synthesis of c-BN, 1409
Nucleation and growth of diamond on cemented carbides by hot-filament CVD, 317
The numerical simulation of diamond synthesis from acetylene flames, 7

Laser assisted CVD
UV photo-assisted crystallization of C, 239
Laser assisted PVD
UV photo-assisted crystallization of C, 239
Laser irradiation
Catalytic interaction of Fe, Ni and Pt with diamond films, 904
Characterization of laser-irradiated surfaces of a polycrystalline diamond film with an atomic force microscope, 924

Comparison of laser and O_2 plasma etching of diamond-like C films, 211
Diamond device delineation via excimer laser patterning, 829
Diamond synthesis by CO_2 laser irradiation, 190
Diamond windows for IR applications in adverse environments, 1024
Improvement in IR properties of CVD diamond films by smoothening with KrF excimer radiation, 678
Ion and laser induced modification of optical and structural properties of i-C films, 1379
Laser-induced PVD of diamond-like carbon films, 233
Microcrystalline diamond phase by laser ablation of graphite, 425
Photo-ionisation threshold yields for the pulsed laser irradiation of diamond films at 266 nm, 1430
Raman signal *vs.* preparation conditions of C-implanted-and-excimer-laser-annealed Cu thin films, 746
Recovery process of photochromism of H2 and H3 centres in diamond, 768
UV laser processing of diamond films: effects of irradiation conditions on the properties of laser-treated diamond film surfaces, 291

Low substrate temperature
Characterization of interfaces between a-CH films and steel substrates using high resolution cross-sectional TEM, 562
Deposition of dense C:H films at elevated substrate temperature, 251
Growth of diamond thin films by ECR plasma-assisted CVD at low pressures and temperatures, 1355
Hydrogen-free amorphous C coatings deposited by the arc ion-plating process, 243
Laser-induced PVD of diamond-like C films, 233
Low-temperature deposition of diamond using chloromethane in a hot-filament CVD reactor, 365
Preparation of c-BN containing films by reactive r.f. sputtering, 1206
The growth of diamond using halogenated methane, 311
The influence of substrate temperature during IBD on the diamond-like or graphitic nature of C films, 285

Luminescence
Aerosol doping of flame-grown diamond films, 1078
Luminescent characterization of radiation damage and impurities in ion-implanted natural diamond, 640
Photoluminescence and cathodoluminescence studies of semiconducting diamond, 87
Post-depositional diamond etching, 683

Mechanical properties
Characterization of interfaces between a-CH films and steel substrates using high resolution cross-sectional TEM, 562
Characterization of laser-irradiated surfaces of a polycrystalline diamond film with an atomic force microscope, 924
Characterization of thin diamond-like carbon films by ultrasonic surface waves, 1396
Depth profiles of carbon, nitrogen and oxygen on carbon coated steel surfaces made by ion beam assisted deposition, 1175
Diamond windows for IR applications in adverse environments, 1024
Diamond–metal composite coatings on cemented-carbide tools, 617
Elastic characteristics of DLC coatings, 869
Elastic properties of thin polycrystalline diamond films, 939
Influence of ion energy and flux composition on the properties of plasma-deposited amorphous C and a-CH films, 246
Large-area diamond deposition and brazing of the diamond films on steel substrates for tribological applications, 612
Liquid and solid erosion properties of diamond, 606
Low amplitude oscillating sliding wear on CVD diamond coatings, 879
Mechanical and thermophysical properties of DLC films with different sp^3/sp^2 ratios, 890
Mechanical properties of diamond and c-BN at different temperatures and deformation rates, 1253
Micromechanical properties of diamond films deposited by microwave-plasma-enhanced CVD, 933
Possible technique for the characterization of diamond films using an ultrasonic resonance technique, 977
R.f. plasma-assisted CVD of diamond-like C films on complex geometries, 272
Self-propagating high-temperature synthesis: a new method for the production of diamond-containing materials, 207
Service properties of cutting tools hardened with a diamond-like coating, 1434
Superpolishing of diamond, 943
Young's modulus and Poisson's ratio of CVD diamond, 918

Metal contacts
Correlation of interface chemistry to electrical properties of metal contacts on diamond, 963
Nickel–CVD diamond interface studied by EELS, 537
Rectifying diodes with a metal/intrinsic semiconductor/semiconductor structure using polycrystalline diamond films, 1107

Metastable carbon
UV photo-assisted crystallization of C, 239

Metastable phase
Metastable diamond formation from solutions at atmospheric pressure, 505

Methane
Deposition of DLC films by photon-enhanced CVD of methane using a windowless H lamp, 255
Temperature measurement of atomic H produced by hot-filament dissociation in a CH_4–H_2 mixture, 481
Thermal diffusivity of diamond films synthesized from methane by arc discharge plasma jet CVD, 852

Microstructure
Analysis of growth process of a-C:H layers, 1344
Compressive stress induced formation of c-BN, 970
Deposition of carbon films by a filtered cathodic arc, 1350
Diamond deposition in a bell-jar reactor: influence of the plasma and substrate parameters on the microstructure and growth rate, 417
Elastic characteristics of DLC coatings, 869
High quality homoepitaxial growth of diamond films, 713
Influence of π-bonded clusters on the electronic properties of DLC films, 259
Micromechanical properties of diamond films deposited by microwave-plasma-enhanced CVD, 933
Properties and stability of DLC films related to bonded and unbonded hydrogen, 673
Structure origins of diffraction pattern features of diamond-like films, 573

Thermal conductivity and the microstructure of state-of-the-art CVD diamond, 1059
Thermal diffusivities of thin diamond films on silicon, 1185
Microwave plasma CVD
Adhesion strength of diamond film on cemented carbide insert, 1391
Characterization of diamond films deposited using $C_3H_6O_x$–H_2 gas mixtures, 732
Diamond deposition from an Ar–CCl_4–H_2 plasma jet at 13.3 kPa, 342
Diamond deposition in a bell-jar reactor: influence of the plasma and substrate parameters on the microstructure and growth rate, 417
Diamond deposition on Cr, Co and Ni substrates by microwave plasma CVD, 1505
Diamond homoepitaxy by CVD, 147
Diamond-infiltrated carbon–carbon composites, 1069
Diamond membranes with controlled stress for submicron lithography, 1191
Effect of high supersaturation at the initial stage on diamond nucleation phenomena, 333
Effect of substrate pretreatment on diamond deposition, 758
Electrical conduction mechanisms in polycrystalline CVD diamond films, 797
H dissociation in a microwave discharge for diamond deposition, 25
Heteroepitaxial diamond growth on (100) Si, 1112
Improvement on adhesion strength of diamond film on cemented carbide by heated intermediate layer, 1156
Influence of atomic H gradients on growth rate and nucleation of diamond produced by microwave plasma assisted deposition, 298
Influence of oxygen, in gas mixtures and various substrate positions, on broad cathodoluminescence bands of MPCVD diamond films, 737
Investigation of diamond thin film growth on ferrous surfaces, 353
Micromechanical properties of diamond films deposited by microwave-plasma-enhanced CVD, 933
Microwave plasma CVD of high purity diamond films, 402
Non-diamond carbon phases in plasma-assisted deposition of crystalline diamond films: a Raman study, 1257
Photo-ionisation threshold yields for the pulsed laser irradiation of diamond films at 266 nm, 1430
Preparation of smooth and nanocrystalline diamond films, 449
Properties and texture of B-doped diamond films as thermal sensor, 793
Space-charge-limited current flow and trap density in undoped diamond films, 825
Systematic investigation of plasma emission spectra during microwave diamond deposition from CH_4–CO_2 and C_2H_2–CO_2 gas mixtures, 389
Temperature dependence of cathodoluminescence from CVD diamond, 1
The deposition and characterization of β-SiC and diamond/β-SiC composite films, 523
The dilution effect of noble gases on the structure and composition of CVD diamond films, 531
The effect of substrate bias voltage on the nucleation of diamond crystals in a microwave plasma assisted CVD process, 407
The effect of surface preparation on the nucleation of diamond on Si, 432
The growth of diamond using halogenated methane, 311
Uniform diamond coatings on 4 in Si wafers, 1211
Trapping of hydrogen in diamond, 1414
Variation of Raman diamond line shape with crystallographic orientation of isolated CVD diamond crystals, 753
XPS study of the surface layers between diamond crystallites and Si substrate deposited by microwave-plasma-assisted CVD, 558
Mixed carbon isotopes
Localised vibrational modes in diamonds grown from mixed C isotopes, 136
Mobility
Diamond radiation detectors, 1012
Electrical properties of high quality diamond films, 820
Modelling
Ab initio study of hydrocarbons on diamond (111), 949
Autocorrelation function of velocity fluctuations and noise in diamond, 15
Deposition mechanisms for promoting sp^3 bonding in DLC, 984
Deposition of dense C:H films at elevated substrate temperature, 251
Geometric modeling of the diamond–β-SiC heteroepitaxial interface, 590
H dissociation in a microwave discharge for diamond deposition, 25
Localised modes due to single nitrogen defects in mixed host isotope synthetic diamond, 1243
Supersonic DC-arcjet synthesis of diamond, 454
Temporally resolved response of a natural type IIA diamond detector to single-particle excitation, 835
The numerical simulation of diamond synthesis from acetylene flames, 7
Molecular beam epitaxy
Growth and application of cubic SiC, 1043
Molecular species
Analysis of growth process of a-C:H layers, 1344
Recent results on the deposition of diamond thin films by arcjet plasmas and diagnostic measurements of the plasma-surface region, 443
Morphology
Characterization of diamond films for optical coatings, 694
Deposition of carbon films by a filtered cathodic arc, 1350
Effect of substrate pretreatment on diamond deposition, 758
Thermal diffusivities of thin diamond films on silicon, 1185
The dilution effect of noble gases on the structure and composition of CVD diamond films, 531
The growth of diamond using halogenated methane, 311
Mössbauer spectroscopy
Study of high pressure diamond synthesis by Mössbauer spectroscopy, 1322

Natural diamond
Calorimetric absorption spectroscopy and photoluminescence study of defects in diamond, 699
Liquid and solid erosion properties of diamond, 606
Synchrotron spike topography of natural Type Ia diamond, 115
Temporally resolved response of a natural type IIA diamond detector to single-particle excitation, 835
Type IIb diamond thin films deposited onto near-colorless natural gem diamonds, 70

Nitrogen
Inhomogeneous distribution of nitrogen impurities in {111} growth sectors of high pressure synthetic diamond, 1420
Localised vibrational modes in diamonds grown from mixed C isotopes, 136
Nitrogen-doped DLC
Stresses in DLC films, 1519
Nitrogen inclusions
Localised modes due to single nitrogen defects in mixed host isotope synthetic diamond, 1243
Non-diamond carbon
An r.f. plasma jet applied to diamond, glassy carbon and SiC film synthesis, 517
Characterization of catalytically synthesized turbostratic C films used for improved rates of diamond nucleation, 225
Non-equilibrium thermodynamics
Recovery process of photochromism of H2 and H3 centres in diamond, 768
Nuclear magnetic resonance
Evolution of the structure of ultrafine SiC-laser-formed powders with synthesis conditions, 486
Nucleation
Analysis and modeling of diamond heterogeneous nucleation kinetics, 990
Characterization of catalytically synthesized turbostratic C films used for improved rates of diamond nucleation, 225
Characterization of diamond films for optical coatings, 694
Diamond nucleation on pretreated substrates, 278
Diamond synthesis on subtrate treated by collision with particles, 323
Effect of high supersaturation at the initial stage on diamond nucleation phenomena, 333
Investigation of surface preparation for diamond deposition on molybdenum substrates by SIMS, 958
Nucleation and growth of diamond using a computer-controlled oxy-acetylene torch, 438
Nucleation of diamond on vapour deposited graphite, 383
The effect of surface preparation on the nucleation of diamond on Si, 432
Nucleation and growth
Analysis of CVD diamond grain boundaries using TEM and parallel EELS in a scanning transmission electron microscope, 1004
CO_2-laser-induced gas-phase synthesis of micron-sized diamond powders: recent results and future developments, 174
Deposition of dense C:H films at elevated substrate temperature, 251
Determination of the overall nucleation density on tungsten: a new treatment of the data, 952
Diamond deposition in a bell-jar reactor: influence of the plasma and substrate parameters on the microstructure and growth rate, 417
Diamond deposition on Cr, Co and Ni substrates by microwave plasma CVD, 1505
Diamond nucleation on steel substrates, 361
Diamond synthesis on a metal substrate, 1083
Effect of substrate pretreatment on diamond deposition, 758
Effect of the buoyancy force on diamond formation during synthesis under a high pressure, 496
Elastic scattering of light and reflectivity development during low pressure diamond film growth, 718
Heteroepitaxial diamond growth on (100) Si, 1112
High quality homoepitaxial growth of diamond films, 713
Hot-filament CVD of diamond on SiAlON at pressures up to 500 Torr, 1263
Influence of atomic H gradients on growth rate and nucleation of diamond produced by microwave plasma assisted deposition, 298
Initial stages in the growth of polycrystalline diamond on Si, 1467
Investigation of diamond thin film growth on ferrous surfaces, 353
Investigation of nucleation centres in diamond CVD with spatially resolved XPS, 1525
Low-temperature deposition of diamond using chloromethane in a hot-filament CVD reactor, 365
Microcrystalline diamond phase by laser ablation of graphite, 425
New method for selective growth of diamonds by microwave plasma CVD, 1490
New non-metallic catalysts for the synthesis of high pressure, high temperature diamond, 183
Nucleation and growth of diamond on cemented carbides by hot-filament CVD, 317
Nucleation mechanisms of diamond in plasma CVD, 328
Synthesis of diamond using iron catalyst by r.f. plasma CVD, 656
The effect of substrate bias voltage on the nucleation of diamond crystals in a microwave plasma assisted CVD process, 407
Uniform diamond coatings on 4 in Si wafers, 1211
Variation of Raman diamond line shape with crystallographic orientation of isolated CVD diamond crystals, 753

Ohmic contacts
Comparison of the electrical properties of single-crystal and polycrystalline diamond by Hall effect and capacitance–voltage measurements, 841
Degradation mechanisms of passivated and unpassivated diamond thermistors, 1100
Diamond radiation detectors, 1012
Ohmic contacts to epitaxial and natural diamond, 1319
Optical defect centres
Calorimetric absorption spectroscopy and photoluminescence study of defects in diamond, 699
Ni in diamond: an annealing study, 130
Recovery process of photochromism of H2 and H3 centres in diamond, 768
Optical properties
Characterization of diamond films for optical coatings, 694
Determination of the optical constants of fine grained diamond layers on Si substrates using curve fitting-procedures, 704
Diamond metal–semiconductor–metal UV photodetectors, 1020
Effect of small amounts of hydrochloric acid on the synthesis of translucent sintered cubic BN, 1160
Effects of fluorine implantation into a-C:H thin films, 580
Elastic scattering of light and reflectivity development during low pressure diamond film growth, 718
Electronic properties of a-C:H, 1360
Free standing white diamond for thermal and optical applications, 1064
Improvement in IR properties of CVD diamond films by smoothening with KrF excimer radiation, 678

Influence of π-bonded clusters on the electronic properties of DLC films, 259
Investigation of DLC films for protection and stabilization of Se-containing photoreceptors in electrophotography, 667
Ion and laser induced modification of optical and structural properties of i-C films, 1379
Optical and electronic properties of amorphous diamond, 782
Optical reflection and angle-resolved light scattering from textured polycrystalline diamond films, 1248
Photo-ionisation threshold yields for the pulsed laser irradiation of diamond films at 266 nm, 1430
Photoluminescence investigation of a-C:H thin films, 670
Preparation of smooth and nanocrystalline diamond films, 449
Properties and stability of DLC films related to bonded and unbonded hydrogen, 673
Recovery process of photochromism of H2 and H3 centres in diamond, 768
Structural, optical and electronic properties of wide band gap amorphous C–Si alloys, 773
Study of the optical properties of diamond-like coatings prepared by Laser-Arc, 1424
Type IIb diamond thin films deposited onto near-colorless natural gem diamonds, 70
Vacancy complexes in diamond, 80

Optoelectronic properties
Diamond metal–semiconductor–metal UV photodetectors, 1020

Orientation
Heteroepitaxial diamond growth on (100) Si, 1112

Oxidation behaviour
Comparison of laser and O_2 plasma etching of DLC films, 211
Degradation mechanisms of passivated and unpassivated diamond thermistors, 1100
Diamond deposition with Ar–CO_2–CH_4–H_2 plasma jets, 337
Fabrication of diamond thin-film thermistors for high temperature applications, 816
Post-depositional diamond etching, 683
Superpolishing of diamond, 943
UV laser processing of diamond films: effects of irradiation conditions on the properties of laser-treated diamond film surfaces, 291

PACVD
DLC films by plasma assisted CVD near room temperature, 1483

Peridotitic diamond
The geology of diamond: time and depth profiles from inclusions, 75

Phase diagram
High pressure reactions and formation mechanism of cubic BN in the system BN–Mg_3N_2, 1168
New non-metallic catalysts for the synthesis of high pressures, high temperature diamond, 183
New scope of high pressure–high temperature synthesis of c-BN, 1409
Systematic investigation of plasma emission spectra during microwave diamond deposition from CH_4–CO_2 and C_2H_2–CO_2 gas mixtures, 389

Phonon scattering
Effective free path length of phonons in diamond, 862
Electrical properties of high quality diamond films, 820
Influence of point defects on the thermal conductivity of diamond single crystals: state of the art, 1500
Thermal conductivity and the microstructure of state-of-the-art CVD diamond, 1059

Photoconductivity
Diamond metal–semiconductor–metal UV photodetectors, 1020
Diamond radiation detectors, 1012
Electrical properties of high quality diamond films, 820
Investigation of DLC films for protection and stabilization of Se-containing photoreceptors in electrophotography, 667
Temporally resolved response of a natural type IIA diamond detector to single-particle excitation, 835

Photoluminescence
Calorimetric absorption spectroscopy and photoluminescence study of defects in diamond, 699
Influence of π-bonded clusters on the electronic properties of DLC films, 259
Photoluminescence investigation of a-C:H thin films, 670

Physical vapour deposition
Amorphous SiC–PVD coatings, 528
Characterization of thin diamond-like carbon films by ultrasonic surface waves, 1396
Deposition of carbon films by a filtered cathodic arc, 1350
Growth of c-BN by CVD and high pressure high-temperature synthesis, 197
H-free amorphous C coatings deposited by the arc ion-plating process, 243
Laser-induced PVD of DLC films, 233
Optical and electronic properties of amorphous diamond, 782
Study of the optical properties of diamond-like coatings prepared by Laser-Arc, 1424

Planar defects
Diamond homoepitaxy by CVD, 147

Plasma diagnostics
Degenerate four-wave mixing diagnostics of atmospheric pressure diamond deposition, 661
Influence of atomic H gradients on growth rate and nucleation of diamond produced by microwave plasma assisted deposition, 298
Ion energy distributions from electron cyclotron resonance methane plasmas, 378
Microwave plasma CVD of high purity diamond films, 402
Plasma diagnosis in d.c.-biased hot-filament-assisted CVD by double-probe method, 476
Recent results on the deposition of diamond thin films by arcjet plasmas and diagnostic measurements of the plasma-surface region, 443
R.f. plasma-assisted CVD of DLC films on complex geometries, 272
Studies of the optical emission from a hydrogen–hydrocarbon r.f. plasma jet stream during diamond film deposition, 347

Plasma etching
An r.f. plasma jet applied to diamond, glassy carbon and SiC film synthesis, 517
Comparison of laser and O_2 plasma etching of DLC films, 211

Plasma jet CVD
An r.f. plasma jet applied to diamond, glassy carbon and SiC film synthesis, 517

Diamond deposition from an Ar–CCl_4–H_2 plasma jet at 13.3 kPa, 342
Diamond deposition with Ar–CO_2–CH_4–H_2 plasma jets, 337
Diamond synthesis on a metal substrate, 1083
Enlargement of the diamond deposition area by one-cathode three-anode arc discharge plasma jet CVD, 1402
Evaluation of d.c.-plasma jet CVD for diamond coatings on tungsten carbide based cutting plates, 1464
Free standing white diamond for thermal and optical applications, 1064
Improvement in IR properties of CVD diamond films by smoothening with KrF excimer radiation, 678
Investigation of rotating d.c. discharge for diamond deposition, 357
Recent results on the deposition of diamond thin films by arcjet plasmas and diagnostic measurements of the plasma-surface region, 443
Studies of the optical emission from a hydrogen–hydrocarbon r.f. plasma jet stream during diamond film deposition, 347
Thermal diffusivity of diamond films synthesized from methane by arc discharge plasma jet CVD, 852

Platelets
Synchrotron spike topography of natural Type Ia diamond, 115

Point defects
Effective free path length of phonons in diamond, 862
Influence of point defects on the thermal conductivity of diamond single crystals: state of the art, 1500
Ni in diamond: an annealing study, 130
Positron lifetime investigations of diamond films, 1479
Vacancy complexes in diamond. 80

Polycrystal
Characterization of diamond films deposited using $C_3H_6O_x$–H_2 gas mixtures, 732
Effect of small amounts of hydrochloric acid on the synthesis of translucent sintered cubic BN, 1160
Electrical conduction mechanisms in polycrystalline CVD diamond films, 797
Non-linear current–voltage characteristics of Be-doped cubic-BN polycrystals synthesized at high pressure, 1473
Trap states elucidated by a.c. conductance measurement in polycrystalline CVD diamond films, 803

Polycrystalline
A comparative study of laminar and turbulent oxygen–acetylene flames for diamond deposition, 393
Controlled deposition of diamond from an acetylene–oxygen combustion flame, 1149
Deposition and properties of polycluster diamond films, 1327
Diamond deposition in a bell-jar reactor: influence of the plasma and substrate parameters on the microstructure and growth rate, 417
Electrical characteristic frequency dispersion of diamond polycrystalline films, 1336
Electrical properties of undoped large-grain and small-grain diamond films, 812
Electron paramagnetic resonance of boron-implanted natural diamonds and epitaxial diamond films, 1164
High frequency bandpass filter using polycrystalline diamond, 1197
Mechanical properties of diamond and c-BN at different temperatures and deformation rates, 1253
Microcrystalline diamond phase by laser ablation of graphite, 425
^1H NMR studies on the effects of annealing on CVD diamond, 126
Plasma-assisted CVD of diamond films by hollow cathode arc discharge, 413
Production and characterization of d.c. and h.f. plasma jet diamond films, 468
Properties of stoichiometric and Si-rich polycrystalline SiC films deposited by CVD on various substrates, 1330
Structure origins of diffraction pattern features of diamond-like films, 573
Ti carbide rectifying contacts on B-doped polycrystalline diamond, 37
Young's modulus and Poisson's ratio of CVD diamond, 918

Pretreated substrates
Diamond nucleation on pretreated substrates, 278

Radiation effects
Characterization of ion-beam-deposited DLC films, 584
Ion beam modification of diamond, 621
Ion etching behaviour and surface binding energies of hard diamond-like carbon and microwave CVD diamond films, 266
Luminescent characterization of radiation damage and impurities in ion-implanted natural diamond, 640
Vacancy complexes in diamond, 80

Radical species
Characterization of diamond films deposited using $C_3H_6O_x$–H_2 gas mixtures, 732
Studies of the optical emission from a hydrogen–hydrocarbon r.f. plasma jet stream during diamond film deposition, 347

Raman spectroscopy
Controlled deposition of diamond from an acetylene–oxygen combustion flame, 1149
Defects in CVD diamond films studied by ESR and Raman spectroscopy, 722
Diamond homoepitaxy by hot filament CVD, 462
Effect of B incorporation on the quality of MPCVD diamond films, 742
Effect of high supersaturation at the initial stage on diamond nucleation phenomena, 333
Electrical conduction mechanisms in polycrystalline CVD diamond films, 797
Fullerenes and diamond, 1203
Influence on diamond nucleation of the C concentration near the substrate surface, 19
Initial stages in the growth of polycrystalline diamond on Si, 1467
Investigation of rotating d.c. discharge for diamond deposition, 357
Non-diamond carbon phases in plasma-assisted deposition of crystalline diamond films: a Raman study, 1257
Post-depositional diamond etching, 683
Preferential incorporation of defects in monocrystalline diamond films, 92
Preparation of smooth and nanocrystalline diamond films, 449
Production and characterization of d.c. and h.f. plasma jet diamond films, 468
Raman signal *vs.* preparation conditions of C-implanted-and-excimer-laser-annealed Cu thin films, 746

Structural investigation of low energy ion beam deposited diamond-like films, 1439
The dilution effect of noble gases on the structure and composition of CVD diamond films, 531
The growth of diamond using halogenated methane, 311
The influence of substrate temperature during IBD on the diamond-like or graphitic nature of C films, 285
Variation of Raman diamond line shape with crystallographic orientation of isolated CVD diamond crystals, 753
Rectifying contacts
Electrical properties of undoped large-grain and small-grain diamond films, 812
Isothermal capacitance transient spectroscopy study of defect states in polycrystalline diamond films, 1179
Rectifying diodes with metal/intrinsic semiconductor/semiconductor structure using polycrystalline diamond films, 1107
Ti carbide rectifying contacts on B-doped polycrystalline diamond, 37
Reflection electron microscopy
Reflection electron microscope and scanning tunneling microscope observations of CVD diamond (001) surfaces, 1271
R.f. plasma CVD
Effect of deposition parameters on the compressive stress in a-C:H thin films, 885
Electrical properties of diamond-like C–Si heterojunctions manufactured under ultraclean conditions, 788
Interfacial electrical properties of DLC/GaAs heterostructures, 1459
R.f. plasma-assisted CVD of DLC films on complex geometries, 272
Structural, optical and electronic properties of wide band gap amorphous C–Si alloys, 773
Synthesis of diamond using iron catalyst by rf plasma CVD, 656
Rutherford backscattering
Analysis using high energy beam techniques of surface carbonaceous layers of Si and Ta substrates used in CVD synthesis of diamond, 1365
Characterization of ion-beam-deposited DLC films, 584
Diamond homoepitaxy by hot filament CVD, 462
Simple and sensitive way to determine C film thickness, 893
The influence of substrate temperature during IBD on the diamond-like or graphitic nature of C films, 285

Scanning electron microscopy
Simple and sensitive way to determine C film thickness, 893
Scanning tunneling microscopy
Non-diamond carbon phases in plasma-assisted deposition of crystalline diamond films: a Raman study, 1257
Reflection electron microscope and scanning tunneling microscope observations of CVD diamond (001) surfaces, 1271
Selective deposition
Fabrication process development and characterization of polycrystalline diamond film resistors, 808
Uniform diamond coatings on 4 in Si wafers, 1211
Semiconductor
A diamond driver-active load pair fabricated by ion implantation, 1341
Autocorrelation function of velocity fluctuations and noise in diamond, 15
Comparison of electrical properties of single-crystal and polycrystalline diamond by Hall effect and capacitance–voltage measurements, 841
Fabrication process development and characterization of polycrystalline diamond film resistors, 808
Interfacial electrical properties of DLC/GaAs heterostructures, 1459
Isothermal capacitance trasient spectroscopy study of defect states in polycrystalline diamond films, 1179
Photoluminescence and cathodoluminescence studies of semiconducting diamond, 87
Rectifying diodes with metal/intrinsic semiconductor/semiconductor structure using polycrystalline diamond films, 1107
Silicon carbide
Amorphous SiC–PVD coatings, 528
An r.f. plasma jet applied to diamond, glassy carbon and SiC film synthesis, 517
Diamond formation from a system of SiC and a metal, 508
Epitaxial nucleation of diamond on β-SiC via bias-enhanced microwave plasma CVD, 142
Evolution of the structure of ultrafine SiC-laser-formed powders with synthesis conditions, 486
Geometric modeling of the diamond–β-SiC heteroepitaxial interface, 590
Growth and application of cubic SiC, 1043
Properties of stoichiometric and Si-rich polycrystalline SiC films deposited by CVD on various substrates, 1330
Spectroscopic ellipsometry measurements of diamond-crystalline Si interface in CVD polycrystalline diamond films, 728
Structural, optical and electronic properties of wide band gap amorphous C–Si alloys, 773
Silicon substrates
Determination of optical constants of fine grained diamond layers on Si substrates using curve fitting-procedures, 704
Kinetics of diamond growth on Si(100) substrate monitored by electron spectroscopy, 552
X-Ray study of the interface layer between low temperature deposited diamond film and the Si substrate, 575
Single crystals
Influence of point defects on the thermal conductivity of diamond single crystals: state of the art, 1500
Mechanical properties of diamond and c-BN at different temperatures and deformation rates, 1253
Thermal expansion of synthetic diamond crystals at low temperatures, 859
Variation of Raman diamond line shape with crystallographic orientation of isolated CVD diamond crystals, 753
Sintering
Effect of small amounts of hydrochloric acid on the synthesis of translucent sintered cubic BN, 1160
Self-propagating high-temperature synthesis, 207
Sliding
Tribological behaviour of DLC coatings at high rates of sliding, 866
Solid solution
Adhesion strength of diamond film on cemented carbide insert, 1391
Solid state diffusion
Synthesis of diamond using iron catalyst by rf plasma CVD, 656

Thinning and patterning of CVD diamond films by diffusional reaction, 1038
Solution growth
High pressure reactions and formation mechanism of cubic BN in the system BN–Mg_3N_2, 1168
Metastable diamond formation from solutions at atmospheric pressure, 505
New scope of high pressure–high temperature synthesis of c-BN, 1409
sp^2 bonding
Deposition and properties of polycluster diamond films, 1327
Influence of π-bonded clusters on the electronic properties of DLC films, 259
Mechanical and thermophysical properties of DLC films with different sp^3/sp^2 ratios, 890
Role of atomic H in preventing surface reconstruction and sp^2 bond formation during CVD of diamond, 41
sp^3 bonding
Fullerenes and diamond, 1203
Influence of sputtering target material on the formation of cubic BN thin films by ion beam enhanced deposition, 512
Mechanical and thermophysical properties of DLC films with different sp^3/sp^2 ratios, 890
Sputtering
Influence of sputtering target material on the formation of cubic BN thin films by ion beam enhanced deposition, 512
Preparation of c-BN containing films by reactive r.f. sputtering, 1206
Service properties of cutting tools hardened with a diamond-like coating, 1434
Stacking faults
Structure origins of diffraction pattern features of diamond-like films, 573
Step controlled epitaxy
Growth and application of cubic SiC, 1043
Stress
Compressive stress induced formation c-BN, 970
Diamond deposition in a bell-jar reactor: influence of the plasma and substrate parameters on the microstructure and growth rate, 417
Diamond membranes with controlled stress for submicron lithography, 1191
Effect of deposition parameters of compressive stress in a-C:H thin films, 885
Elastic properties of thin polycrystalline diamond films, 939
Low amplitude oscillating sliding wear on CVD diamond coatings, 879
Stresses in DLC films, 1519
Stress relief
Stress relief behaviour of DLC films on glasses, 218
Structural calculations
Passivation of boron acceptor in diamond by atomic hydrogen: molecular-orbital linear-combination-of-atomic-orbitals simulation and experimental data, 1516
Structure origins of diffraction pattern features of diamond-like films, 573
Structural characterization
Deposition of carbon films by a filtered cathodic arc, 1350
Diamond CVD using Ta filaments in H_2–CH_4–O_2 gas mixtures, 373
Evolution of the structure of ultrafine SiC-laser-formed powders with synthesis conditions, 486
Fullerenes and diamond, 1203
Ion and laser induced modification of optical and structural properties of i-C films, 1379
Ion energy distributions from electron cyclotron resonance methane plasmas, 378
R.f. plasma-assisted CVD of DLC films on complex geometries, 272
Structural, optical and electronic properties of wide band gap amorphous C–Si alloys, 773
Synthesis of diamond using iron catalyst by rf plasma CVD, 656
The effect of substrate bias voltage on the nucleation of diamond crystals in a microwave plasma assisted CVD process, 407
Thermal diffusivities of thin diamond films on silicon, 1185
Substrate bias
The effect of substrate bias voltage on the nucleation of diamond crystals in a microwave plasma assisted CVD process, 407
Substrate preparation
Adhesion strength of diamond film on cemented carbide insert, 1391
Diamond synthesis on substrate treated by collision with particles, 323
Diamond–metal composite coatings on cemented-carbide tools, 617
Evaluation of d.c.-plasma jet CVD for diamond coatings on tungsten carbide based cutting plates, 1464
Improvement on adhesion strength of diamond film on cemented carbide by heated intermediate layer, 1156
Influence on diamond nucleation of the C concentration near the substrate surface, 19
Investigation of nucleation centres in diamond CVD with spatially resolved XPS, 1525
Investigation of surface preparation for diamond deposition on Mo substrates by SIMS, 958
Nucleation mechanisms of diamond in plasma CVD, 328
The effect of surface preparation on the nucleation of diamond on Si, 432
Substrates
Diamond deposition on Cr, Co and Ni substrates by microwave plasma CVD, 1505
Surface
Low amplitude oscillating sliding wear on CVD diamond coatings, 879
Surface characterization
Surface-sensitive characterization of diamond by ionization electron energy loss spectroscopy, 542
Surface chemistry
Ab initio study of hydrocarbons on diamond (111), 949
Determination of overall nucleation density of tungsten: a new treatment of the data, 952
Investigation of surface preparation for diamond deposition on Mo substrates by SIMS, 958
Role of atomic H in preventing surface reconstruction and sp^2 bond formation during CVD of diamond, 41
Superpolishing of diamond, 943
Supersonic DC-arcjet synthesis of diamond, 454
Surface sites
Analysis and modeling of diamond heterogeneous nucleation kinetics, 990
Surface structure
Crystal growth and gas ratio effect of diamond films synthesized by oxyacetylene flames, 491

CVD diamond growth mechanisms as identified by surface topography, 997
Diamond synthesis on substrate treated by collision with particles, 323
Evaluation of d.c.-plasma jet CVD for diamond coatings on tungsten carbide based cutting plates, 1464
Investigation of diamond C(111)-(2 × 1) surface exposed to H and hydrocarbon species using second-harmonic generation and sum frequency generation, 567
Ion etching behaviour and surface binding energies of hard DLC and microwave CVD diamond films, 266
Optical reflection and angle-resolved light scattering from textured polycrystalline diamond films, 1248
Photoelectron diffraction analysis of diamond and metal-diamond interfaces, 548
Reflection electron microscope and scanning tunneling microscope observations of CVD diamond (001) surfaces, 1271

Synthetic diamond
Diamond formation from a system of SiC and a metal, 508
Effect of the buoyancy force on diamond formation during synthesis under a high pressure, 496
Elastic scattering of light and reflectivity development during low pressure diamond film growth, 718
Fullerenes and diamond, 1203
Improvement in IR properties of CVD diamond films by smoothening with KrF excimer radiation, 678
Localised modes due to single nitrogen defects in mixed host isotope synthetic diamond, 1243
New non-metallic catalysts for the synthesis of high pressure, high temperature diamond, 183
Recovery process of photochromism of H2 and H3 centres in diamond, 768
Self-propagating high-temperature synthesis, 207
Study of high pressure diamond synthesis by Mössbauer spectroscopy, 1322
The effective free path length of phonons in diamond, 862
The numerical simulation of diamond synthesis from acetylene flames, 7
Thermal expansion of synthetic diamond crystals at low temperatures, 859

Texture development
Optical reflection and angle-resolved light scattering from textured polycrystalline diamond films, 1248
Tetramethylsilane
The deposition and characterization of β-SiC and diamond/β-SiC composite films, 523
Thermal conductivity
Diamond-infiltrated C–C composites, 1069
Free standing white diamond for thermal and optical applications, 1064
Influence of point defects on the thermal conductivity of diamond single crystals: state of the art, 1500
The effective free path length of phonons in diamond, 862
Thermal conductivity and the microstructure of state-of-the-art CVD diamond, 1059
Thinning and patterning of CVD diamond films by diffusional reaction, 1038
Thermal diffusivity
Comparison of laser and O_2 plasma etching of DLC films, 211
Thermal diffusivity of diamond films synthesized from methane by arc discharge plasma jet CVD, 852
Thermal plasma
Degenerate four-wave mixing diagnostics of atmospheric pressure diamond deposition, 661
Diamond deposition by atmospheric pressure induction plasma: effects of impinging jet fluid mechanics on film formation, 1090
Diamond synthesis on a metal substrate, 1083
Diamond–metal composite coatings on cemented-carbide tools, 617
Investigation of rotating d.c. discharge for diamond deposition, 357
Large-area diamond deposition and brazing of the diamond films on steel substrates for tribological applications, 612
Possible technique for the characterization of diamond films using an ultrasonic resonance technique, 977
Thermal properties
Mechanical and thermophysical properties of DLC films with different sp^3/sp^2 ratios, 890
Thermal diffusivities of thin diamond films on silicon, 1185
Thermal expansion of synthetic diamond crystals at low temperatures, 859
Tool coatings
The deposition and characterization of β-SiC and diamond/β-SiC composite films, 523
Transmission electron microscopy
Analysis of CVD diamond grain boundaries using TEM and parallel electron energy loss spectroscopy in a scanning transmission electron microscope, 1004
Characterization of interfaces between amorphous hydrogenated C films and steel substrates using high resolution cross-sectional TEM, 562
Epitaxial nucleation of diamond on β-SiC via bias-enhanced microwave plasma CVD, 142
Structure origins of diffraction pattern features of diamond-like films, 573
Tribology
Tribological properties of DLC and related materials, 597
Twinning
Plasma-assisted CVD of diamond films by hollow cathode arc discharge, 413
Study of crystal defects in natural diamond, 1239

Ultrasonic measurement
Possible technique for the characterization of diamond films using an ultrasonic resonance technique, 977

Vapour growth
CO_2-laser-induced gas-phase synthesis of micron-sized diamond powders, 174
Fabrication of diamond thin-film thermistors for high temperature applications, 816
Vibrational modes
Localised vibrational modes in diamonds grown from mixed C isotopes, 136
Voidites
Synchrotron spike topography of natural Type Ia diamond, 115

Wear
Tribological properties of DLC and related materials, 597

X-ray diffraction
CVD and characterization of smooth {100} faceted diamond films, 158

Diamond homoepitaxy by CVD, 147
Evolution of the structure of ultrafine SiC-laser-formed powders with synthesis conditions, 486
Some aspects in diamond synthesis, 500
X-ray study of the interface layer between low temperature deposited diamond film and the Si substrate, 575
X-ray topography
Study of crystal defects in natural diamond, 1239
Synchrotron spike topography of natural Type Ia diamond, 115
Topographic methods for studying defects in diamonds, 106
XRD imaging of man-made and natural diamond, 121